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A questionnaire survey of 6,455 high school students and 400 teachers in eight secondary schools in the Pittsburgh metropolitan area investigated the relationship of low-income status to educational aspirations and plans. The results are presented in five doctoral dissertations on the following subjects: "Students' Poverty Status and Their Educational Horizons," "Educational Horizons Among Lower Class Negro High School Students," "Adolescents' Perception of School Climate as Related to Selected Personal and School Characteristics," "The Relationship Between Social Origins of Teachers and Their Attitudes Toward Poverty," and "The Relationship Between Family Structure and Sibling Achievement." It was found that (1) the educational aspirations of low-income students were significantly related to social class position and class identification, parental pressure and peer influence, and negative attitudes toward society, school and self, (2) the student's perception of his school experiences was significantly related to his personal and school-related characteristics, (3) teachers with middle class orientations have negative attitudes toward low-income groups because of value differences, and (4) family social structure has a significant effect on students' educational aspirations. For the summary, see UD 007 883. (EF)

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FINAL REPORT

CONTRACT NO. OEC-1-6-061254-0809

# THE RELATIONSHIP BETWEEN POVERTY AND EDUCATIONAL DEPRIVATION

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Final Report

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# THE RELATIONSHIP BETWEEN POVERTY AND EDUCATIONAL DEPRIVATION

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HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

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A research project, such as the present one, involving the participation of many different schools, teachers, and students represents a major administrative enterprise. Additional effort beyond the call of duty is required to supply the information desired. Without such voluntary cooperation, this project would not have been possible.

We would like to express our sincere appreciation to the many individuals who participated in this project. The University of Pittsburgh Learning Research and Development Center not only provided us with essential administrative services but also contributed greatly to the theoretical and methodological formulation and execution of the project. We would like particularly to note the contributions of Robert Glaser, C. Mauritz Lindvall, John L. Yeager, and John O. Bolvin. In addition, we would like to acknowledge the help of the staff of Project SUCCEED, especially J. Steele Gow, Jr., who inspired this research endeavor and Raymond C. Hummel who gave it his full cooperation.

Obviously, this research owes a strong debt of gratitude to the many school personnel who participated in the study. The survey of the Fifth Avenue High School was aided immeasurably by the cooperation of Malcolm Provus, Research Director of the Pittsburgh Board of Public Education.

Data analysis for this report was performed through the University of Pittsburgh Computation and Data Processing Center which is partially supported by National Science Foundation Grant G11309.

Last, but not least, our thanks go to the thousands of high school students and their teachers who completed the questionnaires on which this report is based. We hope the findings will have sufficient significance to repay them for their effort.

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# I. INTRODUCTORY SECTION

- Summary
- Introduction to the Problem
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## Summary

Poverty strikes early in an individual's life when it cuts short his educational opportunities. Such deprivation sharply curtails his "life chances" of breaking out of the generational poverty cycle. The major objective of the study is to examine this relationship between poverty and educational deprivation in an attempt to determine how and why it comes about.

Specifically, our aims are as follows:

1. To investigate the relationship between the presence of and exposure to "poverty" among secondary school students and the development of perceptions, attitudes and values, personality characteristics, and behavior patterns associated with a "culture of poverty" or cultural disadvantage.

2. To investigate the relationship between poverty and such cultural disadvantage and the different degrees and types of educational deprivation.

3. To investigate the relationship between educational deprivation and future educational aspirations, plans, and expectations.

4. To investigate the relationship of teacher perception, knowledge, attitudes and values, student-interaction, and classroom practices to the problem of educational deprivation.

5. To investigate the relationship between family structure and educational horizons of siblings in poverty families.

The method used to pursue these objectives involved the collection of data by means of questionnaires administered to approximately 6,500 students and 400 teachers in eight junior and senior high schools in the four-county Pittsburgh metropolitan area. These schools represent a sampling from urban-suburban-rural communities with differing proportions of poverty and non-poverty students. In addition, in order to secure data on a high poverty population, a primarily Negro school with over 75 percent poverty students is also included in the sample.

In each of the schools, all pupils and teachers were administered questionnaires during the school year 1966-67. These questionnaires were distributed at group sessions during which instructions were given and the questionnaires completed and collected.

The results of this study are presented in a series of five self-contained reports, each of which presents its own statement of the problem and hypotheses, methods, analysis, and interpretation. The main findings and conclusions of each report are as follows:

1. Students' Poverty Status and Their Educational Horizons

The educational plans and aspirations of students from low income families were significantly related to both the objective social class position and the subjective class identification of the student. Other constraining social structural factors were parental pressure and peer influence. On the social-psychological level, negative attitudes towards society, the school experience, and one's self, lowered one's educational aspirations. Each of these factors was found to have an independent effect upon educational plans.

2. Educational Horizons Among Lower Class Negro High School Students

As in the case of white students, educational aspirations and plans of Negro high school students are significantly related to the interpersonal influences of parents and peers and to the students' attitudes toward society as a whole, toward the school experience, and toward himself. In addition, the degree of racial alienation and cultural deprivation affect the Negro students' educational horizons.

3. Adolescents' Perception of School Climate as Related to Selected Personal and School Characteristics

The student's perception and evaluation of his school experiences are significantly related to his social class, sex, course of study, extra-curricular activities, grade level, and educational plans. An interaction analysis of the social class of the student and the general social class of the school indicates these two are interdependent and that what is important in school evaluation is a particular type of student attending a certain type of school.

4. The Relationship Between Social Origins of Teachers and Their Attitudes Toward Poverty

Many teachers display patterned discriminatory attitudes toward poverty groups. Such attitudes are closely tied into a middle-class value orientation. Exposure to poverty tends to reduce poverty hostility based upon perceived value discrepancies. Teachers who use ascriptive, evaluative, and pejorative response modes in structuring their personal and/or group relations are those with greatest prejudice toward people from poverty backgrounds.

5. The Relationship Between Family Structure and Sibling Achievement

Family social structure has a significant effect upon students' educational aspirations. Sex, age, and birth order interact with each other to influence the educational plans of siblings. Low socio-economic status and large family size also have a negative influence upon educational aspirations of family members. Siblings with different educational plans also tend to disagree with respect to such factors as intelligence, school achievement, and perceived parental and peer expectations.

These findings have important implications for both social theory and educational policy. Perhaps most important is the evidence provided concerning the significant influence exerted by social class upon the educational horizons of young people. Educational deprivation is a direct result of social and cultural deprivation. The social structural constraints of lower objective and subjective social class membership and of negative parental and peer influence combine with unfavorable attitudes and evaluations of society, school, and self to decrease the desires and plans of "poverty" students to seek a higher education. The bond between poverty and educational deprivation appears to be firmly established.

## Introduction to the Problem

One of the major consequences of poverty for young boys and girls concerns their education. Although all children are entitled to a publicly supported education, there are many reasons to believe that, as currently constituted, the public school educational system is not adequately meeting the needs of poverty youth. As stated in the report by the Panel on Educational Research and Development:

> By all known criteria, the majority of urban and rural slum schools are failures. In neighborhood after neighborhood across the country, more than half of each age group fails to complete high school, and five percent or fewer go on to some form of higher education. In many schools the average measured I.Q. is under 85, and it drops steadily as the children grow older. Adolescents depart from these schools ill-prepared to lead a satisfying, useful life or to participate successfully in the community.[1]

Many explanations have been put forth to account for this situation of "educational deprivation" among the poor. These range from indictments of the schools as being unwilling and unprepared to deal with children from poverty backgrounds, to the middle-class values and social bias of school teachers; from neglect and a lack of interest among community organizations, to the social alienation and limited educational aspirations among the low income groups. Undoubtedly educational deprivation springs from many causes; it is probable that all of the above groups must share responsibility for this situation, just as all must join in any proposed remedy.

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[1] Innovation and Experiment in Education, A Progress Report of the Panel on Educational Research and Development, Washington, D.C.: Government Printing Office, March 1964, p. 29.

The major problem to be studied concerns the relationship between membership of secondary school students in different kinds of poverty groups and various manifestations of educational deprivation. While the literature is replete with dramatic denunciation -- "Passive and unhappy, many children sit in school and learn little. Much of what the school offers appears meaningless to them"[2] -- such generalizations lack sufficient specificity to serve as useful definitions of the problem or guides to action and, in many instances, are based upon largely untested assumptions concerning the nature and consequences of both poverty and educational deprivation.

It is our position that neither poverty nor educational deprivation are unitary concepts and that program planning and development in this area must take into account highly important variations in both aspects of the problem. Poverty will differ from community to community, from group to group, and from individual to individual on such basic dimensions as objective characteristics which place one in the poverty class and subjective awareness of poverty status and the development of patterns of poverty behavior. Furthermore, not all members of the poverty class are equally disadvantaged. Despite similar backgrounds of economic deprivation, we hypothesize that there will be wide variations in the degree of social deprivation and exposure to cultural stimuli. Such variations in the consequences of poverty will also extend to individual differences in values and attitudes, patterns of interaction and behavior, and personality characteristics. An understanding of how and why these differences occur despite similar exposure to a "culture of poverty" will provide important guidelines to intervention and change geared to specific situations, groups, and individuals.

Similarly, not all students from poverty backgrounds will respond in the same way to the educational experience. While alienation may be the predominant theme, we hypothesize that the degree and type of such alienation will vary from school to school and from pupil to pupil. In part such variation will depend upon characteristics of the school itself, i.e., the proportion of poverty to non-poverty students, the existence of special programs and facilities, teacher attitudes and practices; and, in part upon the student himself, i.e., motivation, ability, family situation. It is unlikely that programs can be designed to fit the needs of poverty-students "en masse," but until we know the kinds of variation and their source, we are not in a position to take such individual and group differences into account.

The related literature on the culture of poverty and education is, in some respects, quite extensive. However, Goldberg (1963) notes the need for research in this area, especially in regard to the characteristics of the poverty group and strategies for teaching them. It is only within the last several years that researchers have turned, in large numbers, toward investigations of the disadvantaged. Even so, the emphasis has been on the preschool and elementary school child, not on the disadvantaged adolescent.

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[2] Ibid., p. 30.

While there appear to be some methodological problems in determining the number of people in the disadvantaged group, most contemporary studies seem to arrive at similar figures (Rein, 1964). This, of course, does not mean that the poverty group is a homogeneous one. Miller's 1964 typology provides an excellent rationale for examining the effects of different types of poverty situations.

One of the striking characteristics of poverty is its tendency to perpetuate itself between generations (Cohen and Sullivan, 1964). The disadvantaged group appears to have a minimal exposure to those cultural stimuli which are necessary for success in middle-class society (Deutsch, 1960). Their value orientation is more traditional, with the father assuming a more authoritarian role than in middle-class families. Religion tends to be strongest among the women (Reissman, 1962). Other findings are overcrowded homes, family disintegration, poor health conditions and a higher incidence of mental illness (Deutsch, 1960; Bagdikian, 1964; Cohen and Sullivan, 1964). Miller (1958) finds that the life pattern of lower-class culture tends to generate gang delinquency.

Educationally, the disadvantaged have a high proportion of school failure, dropouts, and reading and learning disabilities (Deutsch, 1963; Cohen and Sullivan, 1964). Deutsch (1964) maintains that positive self-image is vital to learning. In a recent study Rosenberg (1965) found that adolescents from higher social classes are somewhat more likely to accept themselves than those from the lower class. Class differences in self-esteem were greater for boys than for girls. Deutsch (1960) reports similar results with elementary school children.

Gottlieb and Houten (1964) report that where Negro or white students are in the minority in a school, they tend to enter activities with a minimum of social or unstructured interpersonal contact. Somewhat related is Krauss' study on "Sources of Aspiration Among Working-Class Youth," (1964). High involvement in extra-curricular activities and attendance at a middle-class school were among the sources of aspiration he lists as significant (see Wilson, 1959). Thus, the type of school, location, proportion of poverty students, etc., may be related to the disadvantaged students' attitudes and values toward education.

Cohen and Sullivan (1964) note that poorer families have lower aspirations for sending their children to college than do middle-class families. However, other studies have shown that while the disadvantaged individual is alienated from the school, he does value education and does aspire to college, although for more utilitarian reasons. Evidently, there is some uncertainty on this point. There does appear to be a difference between the individual's aspirations and expectations and the realization of his educational goals (Reissman, 1962; Hyman, 1953; Reiss and Rhodes, 1959).

Closely related to the educational attitudes, beliefs, success, and alienation of students from school is teacher-student interaction and perceptions. Flanders' (1965) research in Minnesota and New Zealand shows that teacher behavior exerts more effect on pupil attitudes than pupil behavior exerts on teacher influence. However, Gage, et al. (1963) have demonstrated that feedback of pupils' ratings can be used to change teachers' behavior and also improve the accuracy of teachers' perceptions of their pupils' opinion.

Deutsch (1964) contends that teachers and schools are confused and are unprepared for the disadvantaged child. They tend to make certain assumptions which result in failure for the child. Hoehn (1954) could not find support for the hypotheses that teachers differentiate between high- and low-status pupils. Becker (1952) in his study of Chicago school teachers found that teachers perceive and approach different socio-economic groups differently. Teachers felt that less was expected of them with lower-class children. Slum children were perceived to be more difficult to control thus, sterner measures of discipline were used. Slum children were also found to be unacceptable on the basis of their moral values. More recently, Gottlieb (1964) showed that Negro and white teachers perceive disadvantaged youngsters quite differently. He attributes this, in part, to the fact that the Negro teachers came from similar backgrounds as the students and, thus, did not experience as much cultural shock.

The above general statement of the problem and review of the literature will be supplemented in each of the following reports by a more detailed description related specifically to the problem being discussed. Each of these reports also presents its own comprehensive review of the literature.

## Objectives and Hypotheses

We may formulate the following general model as representing the major factors investigated in the present study.

| Independent Variable | Intervening Variable | Dependent Variable |
|---|---|---|
| Poverty Group Status | Cultural Disadvantage | Educational Deprivation |

According to this model, individual differences among students coming from different kinds of poverty backgrounds (the "causal" variables) will find expression in varying reactions to the educational experience and differing plans for the future (the "effect" variables). This antecedent-consequent relationship between poverty and educational deprivation will be modified and conditioned by the degree and kind of cultural disadvantage associated with variations in poverty-status and the different ways in which schools and teachers respond to the problems of teaching students from poverty backgrounds (the "intervening" variables).

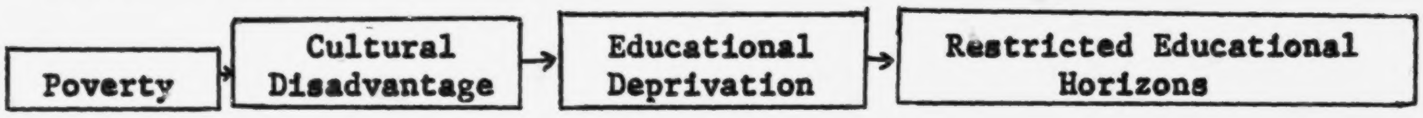
Our specific aims and hypotheses are derived from the above model and may be summarized as follows:

1. To investigate the relationship between the presence of and exposure to "poverty" among secondary school students and the development of perceptions, attitudes and values, personality characteristics, and behavior patterns associated with a "culture of poverty" or cultural disadvantage.

2. To investigate the relationship between poverty and cultural disadvantage and different degrees and types of educational deprivation. It is our hypothesis that when poverty takes certain forms and is expressed in terms of particular aspects of cultural disadvantage these factors will result in educational deprivation.

3. To investigate the relationship between educational deprivation and future educational aspirations, plans, and expectations. One of the major hypothesized consequences of alienation from the school experience among poverty students is the narrowing of their educational and occupational horizons.

In general, the above three major relationships posit a sequence of events as follows:



The multivariate analysis implied in the above model first, seeks to define conceptually and to measure operationally each of the major factors constituting our independent, intervening, and dependent variables; and second, to study the interrelationships of these variables looking at the correlation between any two while the others are held constant. Thus, for example, we are interested in analyzing the relationship between poverty and educational deprivation according to variations in the degree of cultural disadvantage associated with the poverty status. We hypothesize that it is not poverty _per se_ which leads to educational deprivation but rather the extent to which such poverty is accompanied by cultural disadvantage.

4. To investigate the relationship of teacher perception, knowledge, attitudes and values, student-interaction, and classroom practices to the problem of educational deprivation. The teacher represents a crucial factor in the educational experience of the student. Our objective will be to learn as much as we can about those teacher characteristics which have the greatest relevance for the problem of instructing students from a poverty background.

We may assume that some teachers are more successful than others in meeting the challenge of educational deprivation. At the present time, we know very little about the factors producing such variation.

5. To investigate the relationship between family structure and educational horizons of siblings in poverty families. Such factors as size of family, age and sex composition, birth order, etc., are important determinants of the socialization of individual family members. Our hypothesis is that these aspects of the family structure will affect the cultural environment in the home and the educational plans of the different members of the family.

## Methods

This study is based upon the analysis of data collected by means of questionnaires administered to approximately 6,500 students and 400 teachers in eight junior and senior high schools in the four-county Pittsburgh metropolitan area. These schools represent a sampling from urban-suburban-rural communities with differing proportions of poverty and non-poverty students. In addition, in order to secure data on a high poverty school, a primarily Negro school with over 75 percent poverty students is also included in the sample.

In each of the schools, all pupils and teachers were administered questionnaires during the 1966-67 school year. These questionnaires were distributed at group sessions during which instructions were given, the questionnaires filled in and collected.

The development of a reliable and valid questionnaire was obviously of prime importance to the success of this project. For this reason, considerable attention was given to construction of this instrument. Other studies of students and teachers were reviewed and their questionnaires analyzed for relevant scales and indices. Questions of particular relevance to the problem of poverty and educational deprivation were constructed leading to the development of comprehensive instruments for pupils and teachers. These questionnaires were administered to pretest groups of 125 students from poverty and non-poverty backgrounds and to 90 teachers. The results of this pretest were analyzed to determine the relevance, reliability, and validity of the various questions and scales. On the basis of this pretest, final questionnaires were developed for students and teachers.

## Finding, Analysis, and Conclusions

The results of this study are presented in a series of five reports. Each of these reports constitutes a doctoral dissertation dealing with a specific aspect of the study and each, to a large extent, represents a separate, but interrelated, unit of the total study. Each report has been written as a self-contained entity, including its own statement of the problem and hypotheses, description of method, analysis of findings, and conclusions and interpretation. Together, they cover all of the proposed objectives and hypotheses of the project.

Each report contains a final chapter which summarized the findings for the specific topic being studied and presents a discussion of both the theoretical and practical implications of the results. The reader is referred to these concluding chapters for a more detailed summary of findings and conclusions. It would be repetitive to summarize these findings again in the present section. Instead, we will attempt to bring together some of the main highlights of the various studies as they bear upon the problem of poverty and educational deprivation.

The first report, "Students' Poverty Status and Their Educational Horizons," by Donald Q. Brodie expands upon the hypothesized model by developing in detail the social-structural and the social-psychological constraints which impinge upon the educational plans and desires of low-income white high-school students. He finds that each of the following factors has a significant effect upon the educational aspirations of the poverty student:

### Constraining Social Structural and Interpersonal Conditions

Low objective social class position
Low subjective class identification
Low degree of parental pressure for college
Low degree of peer influence for college

### Constraining Demographic and School Characteristics

Female
Senior-high school
Non-college preparatory course

### Constraining Social-Psychological Factors

Negative attitudes toward society
Negative evaluations of school experience
Negative self-image

In all cases, to the extent that the student is subject to each of the constraints listed, he will be less likely to desire or plan to continue his education. The major focus of the subsequent analysis is upon determining the interactive effects of these constraints upon each other. By examining each constraint while the others are held constant, Brodie is able to conclude that, "when the social structure or interpersonal constraints are in opposition to the constraints imposed by students' demographic and contextual characteristics, the latter modify the influence of the social structural and interpersonal constraints." Similarly, in regard to social-psychological constraints, "in almost all instances in which students are constrained by their social structural or interpersonal conditions, the possession of positive attitudes toward society, school, or self can significantly increase the percentage of them aspiring to college."

There can be little question about the interactive effects of these constraints upon each other. Where these constraints are all present, very few students will aspire to higher education; where they are all absent, almost all students will plan to continue their education. Furthermore, when constraints are operating at cross pressures to one another, they can significantly modify their relative strength.

This major finding has important implications for educational policy makers and administrators. Since students' attitudes toward society, school, and self can alter the negative influence of social background, there is much the schools can do to meet this deficit in the social structure. Building a favorable attitude on the part of the poverty student toward the school, helping him to develop a positive self-image, and decreasing his alienation from society can all help to overcome the negative constraints of his poverty background.

The second report, "Educational Horizons Among Lower-Class Negro High School Students," by David M. H. Richmond offers a similar picture of the Negro students in an urban junior-senior high school characterized by poverty. As in the case of the white students, educational aspirations and anticipations are related to interpersonal influences of parents and peers and to the students' attitudes toward society as a whole, toward the school experience, and toward himself. Thus, we find the same constraints, by and large, operating upon poverty-status Negro students as upon white students. In addition, the degree of racial alienation and objective cultural advantages or cultural deprivation affect lower-class black students' desires and expectations of obtaining a higher education.

An analysis of the interactive effects of these constraints upon each other shows that, in general, they reinforce each other when both are in the same direction and tend to counteract each other when in opposition. Thus, these factors must be viewed as relatively independent determinants of educational aspirations and anticipations. Attempts to raise the educational horizons of lower-class Negro students should take each of these variables into account. However, since each factor makes an independent contribution, changing any one of them will have its own measure of effect. In this sense, it is possible for the schools to make up for a lack of positive influences at home or to reduce racial alienation; but, in the same sense, societal alienation or negative self-image can act as counter balancing forces to these positive influences.

The third report by Barry Kaufman, "Adolescents' Perception of School Climate as Related to Selected Personal and School Characteristics," examines the aspect of attitudes toward school in more detail. The student's perception and evaluation of the school climate is found to be significantly related to the following factors:

1. Social class: lower-status youth indicate more positive perception than do upper-class youth.

2. Sex: Boys perceive the school climate less positively than girls.

3. Course of study: Students enrolled in the college preparatory track show a more positive perception of the school climate than students enrolled in vocational-commercial or general programs.

4. Extra-curricular activities: Students who do not participate in extra-curricular activities perceive the school climate less positively than students who do participate.

5. Grade level: As one moves from seventh grade through twelfth grade, there is a decrease in positive perception of school climate.

6. Educational plans: Students planning on postsecondary education manifest a more positive perception of school climate than those not planning on higher education.

Perhaps most surprising in this analysis is the more positive school evaluation of lower-class as opposed to middle-class students. This is found for both individual students classified by socioeconomic status and for schools as a whole when grouped by social class. However, when the interaction of school-social class, sex, and student-social class together on perceived school climate is examined, the findings are altered and the relationship between social class and perceived school climate is less clear. What may be important is a certain type of student attending a certain type of school. From these findings, one may conclude that school alienation is not necessarily a dominant characteristic of lower-income students. In fact, for many of these poverty students, the school may represent a significant and meaningful experience in an otherwise alienated and chaotic world.

Taken together, these three reports provide the major findings related to our initial objectives. We find that low-income status among secondary school students is an important determinant of parental and peer influences and of attitude development in regard to society, school, and self. There can be little question concerning the negative effects of "poverty" in each of those areas. In regard to educational aspirations, "poverty" status is very highly associated with lower educational horizons. The social structural constraints of lower objective and subjective social class membership and of negative parental and peer influence combine with unfavorable attitudes or evaluations of society, school, and self to decrease the desires and plans of "poverty" students to seek a higher education. This applies equally to white and Negro students. The bond between poverty and educational deprivation appears to be firmly established.

A fourth report by David Elliott, "The Relationship Between Social Origins of Teachers and Their Attitudes Toward Poverty," focuses upon the teacher as a potential link in the poverty/educational disadvantage chain. This analysis presents evidence for the existence of patterned discriminatory poverty attitudes on the part of many teachers. Such discriminatory attitudes are not the result of the middle-class origins of most teachers. They are, however, closely tied into a middle-class value orientation. Teachers who support middle-class values, regardless of origins, tend to be negative in orientation toward individuals from poverty backgrounds. Perhaps even more important is exposure to poverty. It appears from the data that exposure operates to reduce poverty hostility based upon perceived value discrepancies.

By far the strongest associations between predictor and poverty variables are those involving the "other-oriented" values. Teachers who tend to use ascriptive, evaluative, and pejorative response modes in structuring their personal and/or group relations are those with greatest hostility toward people from poverty backgrounds. Not only are these the strongest relationships observed, they are also the most stable when controlled on demographic characteristics. Thus, it would appear from this analysis that generalized perceptions of others are more important in determining reaction to poverty pupils than are perceived value differences.

The implication of this finding for teacher training or selection would strongly emphasize the latter as opposed to the former. It would appear that those teachers who are most in need of training would be the least likely to respond favorably to such training. Rather than training, it would appear that meaningful change could best be brought about by alteration of recruitment and placement policies to secure the services of the least biased ascriptive teachers.

The fifth and final report in the series by Jean Elliott is entitled, "The Relationship Between Family Structure and Sibling Achievement." This report deals with a much more specific phenomenon than the previous ones. Basically, it attempts to assess the relationship between family structure and educational aspirations of siblings from lower-income backgrounds. The findings strongly support the necessity of including a student's family structure or context in any model attempting to specify the social origins of educational aspirations.

More specifically, this report finds the following:

1. Social class is related positively and family size negatively to the educational aspirations of siblings.

2. When a female is the older sibling, the age interval between them tends to be important in their educational planning.

3. Birth order is most strongly related to the educational plans of a pair of siblings when the older student is a first-born female.

4. Siblings evidencing dissimilarity in their future plans also tend to disagree with respect to the following: intelligence, school achievement, subjective social class placement, and perceived parental expectations and friends' plans.

5. If the sibling expecting to attend college is the older of the two, he or she tends to have higher self-esteem, lower alienation, more acceptance of parental discipline, and more optimism.

6. When both siblings expect to attend college, they tend to differ in the frequency with which they have discussed their plans. The older has more communication with parents, teachers, and friends than the younger.

The significance of these findings for educational policy lies mainly in their challenge to many of the current concepts concerning the relationship of sex and birth order to educational opportunities. For example, given certain family compositions, females are as likely as males to have high educational aspirations. This research also does not support the characterization of first borns as achievement-oriented regardless of family size, social class, or sex.

More directly related to education, this report strongly supports the depressive effect that the large family has on the educational aspirations of its members. Siblings tend to have similar educational plans, and in large, lower-income families these are not likely to include higher education. Perhaps compensatory education programs might be made more family than individual oriented.

The higher educational aspirations of the younger siblings suggest that the task of educators is not so much one of initially stimulating students on the high-school level but rather one of sustaining an interest as the student grows older. The decreased aspirations of the older student could reflect guidance counseling efforts or cynicism with respect to the "American Dream." It might be desirable to identify potential college talent among low-income groups early in high school and tentatively award college scholarships to these students even before they reach their senior years.

With these highlights of the main findings before us, we now turn to the detailed reports themselves.

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# STRUCTURAL AND INTERPERSONAL INFLUENCES UPON STUDENTS' EDUCATIONAL HORIZONS

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# I. INTRODUCTION

## A. Problem Statement

One of the major consequences of poverty for young boys and girls concerns their education. Although all children are entitled to a publicly supported education, there are many reasons to believe that, as currently constituted, the public school educational system is not meeting the needs of poverty youth. This failure on the part of the educational system is evidenced not only in lower levels of achievement in school by children from poverty backgrounds,[1] but, also, in their lower levels of educational aspirations.[2]

The "American Ideal" views students as the recipients of a free, publicly supported education preparing them both as "good citizens" and as individuals ready to assume functional, productive roles in society. The reality of our educational system suggests that the ideal is tarnished. Every year many students fail to complete the requirements for a high school education. The

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[1] Patricia C. Sexton, Education and Income (New York: The Viking Press, Inc., 1965), pp. 26-30; August B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1961), pp. 172-174.

[2] See pp. 11-39 for a summary of the literature dealing with the topic of educational aspirations.

U.S. Census reports that in 1966, 19.6 percent of people between the ages of 16 and 21 were not enrolled in school and were not a high school graduate.[3] Furthermore, many of those who complete high school move immediately, or in a relatively short period of time, into the ranks of the unemployed.

The process by which this phenomenon occurs is not unknown. Racial and ethnic prejudice take their toll. Technological advances certainly create situations in which the unskilled and unprepared cannot function adequately.

This entire situation would be labeled a social problem and remain one of social welfare concern if we were dealing only with the misery of individuals. However, the phenomenon is one of sociological concern (as well as being of social welfare concern) because it is, in large measure, a recurrent and societally determined occurrence. That is, unemployment, unemployability, the inability to function in societally and economically productive roles is a fact of complex American society for many individuals from certain social segments of our population. The sociological problem is one of identifying reasons for the recurrence of this phenomenon among certain social categories of the American population.

It is a reality of contemporary American society that those occupations that have higher levels of prestige and income associated with them also have higher levels of educational attainment as prerequisites to their attainment. As Brunner and Wayland suggest:

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[3] U.S. Bureau of the Census, Statistical Abstract of the United States: 1966 (87th ed.; Washington, 1966), p. 117.

> It is well established that educational attainment is related to the type of work in which people engage and conversely, that for an increasing number of occupations initial entry is limited to those who have attained a given level of education. The days when a high school graduate could 'read' law or medicine with a successful practitioner of these professions and eventually qualify as a lawyer or doctor are over. In five of the 13 major occupational groupings derived from the 1950 census classification, above-average educational status is either required or preferred.[4]

Whether one agrees or disagrees with the idea that occupational statuses and their respective role performers are rewarded financially and in terms of prestige relative to their "importance" to society as a whole, it is evident that the occupational structure of American society is ever increasingly united to the educational structure. In particularistic terms, an individual's occupational attainment is directly related to his educational attainment. Table 1.1 illustrates this relationship.

From this table, we can conclude that society "pushes" the individual to attain levels of education which will enable him to perform occupational roles that have associated with them certain social and economic rewards. On the other hand, the occupational structure "pulls" the

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[4] Edmund deS. Brunner and Sloan Wayland, "Occupation and Education," Education, Economy, and Society, ed. A. H. Halsey, Jean Floud, and C. Arnold Anderson (New York: The Free Press, 1961), p. 55.

Table 1.1[a]

### MEDIAN YEARS OF SCHOOL COMPLETED BY EMPLOYED MALES 18 YEARS OLD AND OVER BY OCCUPATION GROUP MARCH 1959*

| Occupation Group | Median |
|---|---|
| Professional, technical and kindred workers | 16.4 |
| Medical and other health workers | 17+ |
| Teachers, except college | 17+ |
| Other professional, technical and kindred workers | 16.1 |
| Managers, officials, and proprietors (except farm) | 12.4 |
| Salaried workers | 12.7 |
| Self-employed workers | 12.0 |
| Clerical and kindred workers | 12.5 |
| Sales workers | 12.6 |
| Craftsmen, foremen, and kindred workers | 11.0 |
| Operatives and kindred workers | 10.0 |
| Service workers | 10.1 |
| Farmers and farm managers | 8.7 |
| Laborers, except farm and mine | 7.7 |
| *Civilian "noninstitutional" population | 8.5 |

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[a] Source: Murray Gendell and Hans L. Zetterberg (eds.) A Sociological Almanac for the United States (New York: Charles Scribner's Sons, 1961), p. 82, citing Current Population Reports, Series P-20, No. 99, Table E, p. 5.

individual higher in the educational system by requiring certain levels of education before the individual is entitled to enter a given occupational status and perform the associated role.

One of the sociologically significant questions concerning this "push-pull" mechanism is whether it operates at all levels of society or only at specific levels. That is, are material and pecuniary rewards capable of "pushing" individuals from all levels of society into higher levels of education so that they may in fact reap these rewards; or, does the reward system merely "push" those individuals from certain social levels and with certain specific values?

The successful launching of Sputnik in 1957 not only marked a milestone in technological progress, it, also, marked the beginning of a period of severe, critical examination of the American educational system. Aroused by the fear of being relegated to a secondary position in "the space race," the "arms race," and the general "race for excellence," concerned individuals in the United States--scientists, businessmen, educators and government officials--began to review and examine various aspects of the nation's educational system.[5] Almost nothing remained sacred. Questions of whether Johnny could read as well as Ivan became important as did such matters as curriculum, teaching techniques, classroom, school and university organization.[6]

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[5] See for example: George H. Rickover, Education and Freedom (New York: Dutton Press, 1959); George H. Rickover, American Education: A National Failure (New York: Dutton Press, 1963).

In effect, what these individuals had become concerned about was the "push-pull" mechanism mentioned earlier. To increase the "pull" aspect was not particularly difficult. Government grants, loans, scholarships and stipends enabled students with only financial barriers to continue their education. Government and business activities in aerospace and other advanced technological endeavors put the technically educated and trained into a high demand market. The outcome was increased financial reward for those prepared to enter these occupations. Another consequence was the large increases of college students enrolled in engineering and other technical-scientific courses of study, as well as a "draining-off" of technical talent from foreign countries.[7]

A solution to the "push" aspect was not so easily realized, and, in fact, has not yet been accomplished. The reasons for this are complex but may be simply presented as emanating from the state of our knowledge of the social structural conditions, social processes and social mechanisms which could effectively "push" individuals into higher levels of attainment. In other words, while we were aware of the economic mechanisms which could be put into effect and increase rewards, thus "pulling" individuals, we were, and continue to be, unaware of the sociological forces which would be responsible for determining whether or not people would desire to achieve these rewards.

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[6] Arthur S. Trace, Jr., What Ivan Knows That Johnny Doesn't (New York: Random House, 1961).

[7] J. Maddox, "Britain Agitated Anew by Research Team's Decision to Move to United States," Science, CXL (February, 1964), p. 117.

Governmental endeavors to increase the number of individuals continuing their education and pursuing forms of higher education were, and still are, based upon the recognition that large segments of the population are underrepresented among those receiving higher education. Thus, many governmental programs take the form of "talent searches."[8] Often these "talent searches" are designed to identify those students from underprivileged social and economic backgrounds who are considered to be "bright," but who, without the aid of special intervention, would not be likely to advance their education.

At approximately the same time these "talent search" programs began, a great deal of criticism began to appear in popular magazines, professional journals and textbooks concerning the inability of the school to cope with the problems of students from disadvantaged backgrounds.[9] Thus, rather than severe criticism of the educational system per se, although this criticism, too, continued, the school, itself, was examined. The criticisms ranged from indictments of school teachers' and administrators' lack of understanding of students who were not middle class, to class size and to the intellectual caliber of school teachers.[10]

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[8] See: L. M. Terman, "The Discovery and Encouragement of Exceptional Talent," Individual Differences, ed. Anne Anastasi (New York: John Wiley & Sons, Inc., 1965), pp. 249-263; P. E. Tarrance, "Identifying the Creatively Gifted Among Economically and Culturally Disadvantaged Children," Gifted Child Quarterly, VIII (Winter, 1964), pp. 171-176; and, Theresa M. Miller, "A Search for Talent in Economically Distressed Areas," Gifted Child Quarterly, VIII (Winter, 1964), pp. 179-200.

Now, the "talent search" efforts of governmental and nonprofit organizations certainly have yielded some encouraging results. Identifying "bright" students and giving them special attention often does produce highly motivated and highly successful students.[11] However, this approach is, at best, a shotgun attack. In practical economic terms, it appears to be a program inefficient in its use of financial resources. The cost per student of identification, aid and actual educational assistance is

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[9] For example, see: Bernard Asbell, "Not Like Other Children," Redbook, CXXI (October, 1963), pp. 64-68; and, James B. Conant, Slums and Suburbs (New York: McGraw-Hill Company, 1961).

[10] See: Theodore M. Newcomb, "Student Peer-Group Influence," The American College, ed. N. Sanford (New York: John Wiley & Sons, Inc., 1962), pp. 469-488; and, L. M. Heil, M. Powel, and I. Feifer, Characteristics of Teacher Behavior and Competence Related to the Achievement of Different Kinds of Children in Several Elementary Grades (New York: Office of Testing and Research, Brooklyn College, 1960) mimeographed.

[11] Augusta Selligman and Marjorie Pyrke, "Intervention with Intellectually Superior Children in a Deprived Urban Area," Paper presented at the American Orthopsychiatric Association, 1964 Annual Meeting, March 21, 1964.

apt to be enormous. In social welfare terms, these "shotgun" programs, at best, only benefit an extremely small portion of those who might be aided. In manpower recruitment terms, they do not begin to tap the pool of capable personnel. Finally, and possibly most important, from the point of view of seeking a long term solution, this approach provides little information about societal conditions which are responsible for the problem of low educational aspiration and achievement among certain segments of the population. The sociologically relevant question is one of what conditions of American society in general, and social processes in particular, are responsible for the considerable numbers of students from certain sociological categories not desiring to attain higher levels of education than they are at the present time. Specifically, what are the conditions, both social structural and social psychological, which "cause" students from those categories of American society labeled "disadvantaged" not to pursue higher levels of education? That is, why do some students aspire to higher levels of education than others, and how can this be explained? The present work will attempt to increase our knowledge about this phenomenon.

The results of the investigation of the problem will have implications for both sociological theory and for policy planners in the field of education and social welfare. On the policy planning level, the derived results from this study have been indicated above. To briefly reiterate, an investigation of the present problem can be expected to yield results which:

1. Will contribute to the formulation of a long term solution to the problem of manpower recruitment. Policy planning can be directed to the social structural conditions resulting in limited aspirations rather than simply attempting to "treat" individuals characterized by low aspirations. In other words, efforts can be initiated to treat the "cause" rather than the "symptom." Prevention, rather than rehabilitation, will become the focus.
2. Policy planners and others concerned with "return on investment" can be more easily assured that a broad based program would be most likely to reach the greatest number of individuals. This, then, it could be argued, would be more likely to increase the number of individuals aided.

The theoretical implications of this study will become more evident once the conceptual model for the study is developed. Presently, however, we suggest that this study can fruchtify sociological theory in two general areas. First, students of social structure, and especially social stratification, will find abundant evidence in the current of that provided by Hyman, concerning the pervasive influence of a society's system of stratification upon the individual's values, beliefs and attitudes.[12] Related to this are data which further exemplify the relationship between social class position and life chances.

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[12] Herbert H. Hyman, "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification," Class, Status and Power, ed. Reinhard Bendix and Seymour M. Lipset (New York: The Free Press of Glencoe, 1953), pp. 426-441.

In addition to its relevance to the area of social stratification, this study is of importance to those concerned with the effect of organizations--in this case, the school--upon the individual. For just as social class and other social structural characteristics influence the individual's values, beliefs and attitudes; so do organizational experiences modify and possibly change these values, beliefs and attitudes.[13] The data from this study indicate the importance of these organizational experiences. These two will be discussed in more detail in the literature review which follows.

## B. Literature Review

The concept of "aspiration" in sociological literature is not a new one.[14] However, current interest in aspirations probably has been generated from two different but related trends. The first of these trends was a concentrated interest of American sociologists in the stratification system of American society generally, and of particular status systems in individual American communities.[15] The second trend was identified earlier; namely, the question of the efficiency of the nation's system of education became of central concern.[16] This, in turn, led to speculation about why certain individuals were receiving more education than others; and, therefore, the question of the individual's educational aspirations became important.

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[13] See, for example: J. Henry, "Docility, or Giving the Teacher What She Wants," Journal of Educational Research, Vol. 29 (1935), pp. 196-203; Lloyd W. Warner, R. Havighurst and M. Loeb, Who Shall Be Educated? (New York: Harper, 1944); August B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949); Howard S. Becker, "Social Class Variations in Teacher-Pupil Relationship," Journal of Educational Sociology, Vol. 25 (1952), pp. 451-465; P. Laubert, "Some Implications of Teacher Stereotyping," Journal of Educational Research, Vol. 56 (1963), pp. 551-553.

[14] For example, Marx spoke of the aspirations of the proletariat. He asserted that under a capitalistic system of economic organization the proletariat could have no aspirations. He reasoned that they must develop a sense of class consciousness and aspire to an entirely different system of values. See: M. M. Bober, Karl Marx's Interpretation of History (Cambridge, Massachusetts: Harvard University Press, 1948).

The research literature in the field of social stratification deals with the concept of "aspiration" in a variety of contexts. We can identify three of these contexts which comprise a large portion of the research done on aspirations and related topics, and which provide the basis from which the conceptual model for this study is, in part, derived. These three contexts are:

1. The stratification system and values.
2. The stratification system, mobility and occupational aspirations.

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[15] See, for example: W. Lloyd Warner and Paul S. Lunt, The Status System of a Modern Community (New Haven: Yale University Press, 1942); Lloyd Warner et al., Yankee City Series (4 vols., New Haven: Yale University Press, 1942-1947); and, Allison Davis, Burleigh B. Gardner and Mary R. Gardner, Deep South (Chicago: University of Chicago Press, 1941).

[16] Possibly a third trend which has given impetus to the study of aspirations is current interest generated by such recent programs as Head Start and others, directed

3. The stratification system and educational aspirations.

This classification of the literature is arbitrary but does serve a heuristic purpose.

The present study is particularly concerned with the stratification system and educational aspirations. We will, however, also be concerned with the other two contexts because, like most studies of educational aspirations, many of the concepts we shall use have been developed and clarified within these less directly related areas of investigation.

We shall first turn our attention to the relationship between social class and individuals' values. We must consider the question of the extent to which the various classes share or do not share a common value system. This will partially aid us in arriving at an explanation of the similarities or differences in aspirations among members of the different classes to achieve the object of value--education.

Our interest in the research dealing with the relationship between the stratification system and social mobility and occupational mobility is based upon the assumption that the social and social psychological determinants of educational aspiration are not substantially different from the determinants of other particular aspirations. What is different is likely to be the rank position

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to the poor. However, it is too early to assess the long term effects of the political conditions which gave rise to these programs.

of any given value relative to others in the individual's hierarchy of values. This, in turn, we will submit is related to his social class position. As Dole states:

> It was concluded that although educational choice can be distinguished from occupational choice, many of the determinants of educational choice were quite similar to those of occupational choice . . .[17]

Finally, we will be concerned with the research literature dealing specifically with educational aspirations as a source of new hypotheses to be tested and so we may substantiate or refute previously tested hypotheses.

### 1. Social Stratification and Values

Much of the literature in the area of social stratification has dealt with questions about the values of the individuals comprising the different classes. The major point of concern, often implicit, in a large portion of these writings centers about the question of whether American society is based upon a general or common value system to which all classes subscribe and which, in turn, prescribes and proscribes social actions; or, is American society based upon differentiated classes, each with its own value system? As Rodman has stated:

> There are sharp disagreements about the nature of the values held by members of the lower class, and correspondingly, about whether a society is based upon a common value

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[17] Arthur A. Dole, "Sex as a Factor in the Determination of Educational Choice," Journal of General Psychology, LXXI (January, 1964), p. 267.

> system, or a class-differentiated value system. Some writers assert that the basic values of a society are common to all social classes within that society, while others assert that the values differ from class to class.[18]

Talcott Parsons maintains that a common value system underlies the institutional structures in the American system of social stratification. In his discussion of the four levels of structural organization,[19] and the attendant four "functional problems" at each level, he comments:

> At the 'top' of the system is the society as a total system, in the modern case organized as a single political collectivity, and institutionalizing a single more or less integrated system of values.[20]

Parsons does, however, suggest that besides a society's basic value pattern, there exist "secondary or subsidiary or variant value patterns."[21] These he sees as existing at more specific levels of explanation than the societal level.[22]

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[18] Hyman Rodman, "The Lower-Class Value Stretch," Social Forces, XLII (December, 1963), pp. 205-215.

[19] The four levels he identifies, from most general to least general are: 'societal' level, 'institutional' level, 'managerial' level and the 'primary' level. See Talcott Parsons, "General Theory," Sociology Today, ed. Robert K. Merton, Leonard Broom, and Leonard S. Cottrell, Jr. (New York: Basic Books, Inc., 1962), pp. 4-5.

[20] Ibid., p. 8.

[21] Talcott Parsons, The Social System (New York: The Free Press of Glencoe, 1951), p. 169.

[22] Parsons, loc. cit.

Merton's position concerning the question of a common versus a class differentiated value system is similar to that of Parsons. His position can be inferred from statements made in his essay on Social Structure and Anomie.

> It is . . . only because behavior is typically oriented toward the basic values of the society that we speak of a human aggregate as comprising a society. Unless there is a deposit of values shared by interacting individuals, there exist social relations, if the disorderly interactions may be so called, but no society.[23]

We cannot, however, agree with Hyman's interpretation of Merton that "It is clear that Merton's analysis assumes that the cultural goal is in actuality internalized by lower class individuals."[24] In fact, Merton's own statements in his first essay suggest that he does not believe that the lower classes internalize all cultural goals. For example, he states:

> To say that the goal of monetary success is entrenched in American culture is only to say that Americans are bombarded on every side by precepts which affirm the right, or, often, the duty of retaining the goal even in the fact of repeated frustration.[25]

In his second essay on Continuities on Social Structure and Anomie, Merton addresses himself directly to the question of a common value system.

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[23] Robert K. Merton, Social Theory and Social Structure (New York: The Free Press of Glencoe, 1957), p. 141.

[24] Hyman, op. cit., p. 427.

[25] Merton, op. cit., pp. 136-137.

> But if the communications addressed to generations of Americans continue to reiterate the gospel of success, it does not follow that all Americans in all groups, regions, and class strata have uniformly assimilated this set of values.[26]

Even though Merton admits that not all individuals have internalized the general values of society, we still consider him to be a proponent of the idea of a common societal value system. The fact that some individuals do not internalize the general values does not vitiate the general rule for Merton. Also, Merton's typology of deviance is based upon the argument that individuals in the lower class are in a social structural position that handicaps them in their pursuit and attainment, by legitimate means, of the cultural goals of society. This, in turn, is seen as one explanation of why there is a strain toward deviation within the lower class. This reasoning is based upon the assumption that there exists a common value system which cuts across class lines.

Herbert Hyman is representative of those sociologists who contend that American society is characterized by a class differentiated value system rather than a common value system. Hyman has performed a secondary analysis on survey data with the expressed purpose of uncovering some of the reasons that individuals from the lower strata are not likely to be upwardly mobile.[27] Rather than focusing upon objective factors, such as lack of money, which account for this lack of mobility, Hyman proposes to examine those factors of a more psychological nature.

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[26] _Ibid_., p. 170.

[27] Hyman, _op_. _cit_., p. 426.

Hyman reasons that the lower classes are characterized by beliefs and values which vitiate the performance of any actions necessary for members of these classes to rise in the class hierarchy. These beliefs and values are seen as limiting or inhibiting the voluntary actions individuals' might take to improve their social position. The nature of these lower class values are described by Hyman as follows:

> The components of this value system, in our judgement involve less emphasis upon the traditional high success goals, increased awareness of the lack of opportunity to achieve success, and less emphasis upon the achievement of goals which in turn would be instrumental for success. To put it simply, the lower class individual doesn't want as much success, knows he couldn't get it even if he wanted to, and doesn't want what might help him get success.[28]

The evidence provided by Hyman supports his contention that the lower classes place less emphasis upon traditional success goals. Whether this means that the lower classes are characterized by their own value and belief system is a matter of interpretation to which we shall return later.

Robin Williams' discussion of values may be considered to lie at a point between the two positions already discussed.[29] Williams discusses "major value patterns" in American society but is careful to indicate that the use of this term does not imply that all individuals share these values. "Of course, 'American values' are not values necessarily exclusive to, or even peculiar to, the United States, nor do all Americans share them."[30]

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[28] *Ibid.*, p. 427.

Williams' definition of values identifies four components. A value is abstract and conceptual in that it is drawn from a myriad of experiences. It is affectively charged in that the individual invests emotion in it. It is not a concrete object or goal of action, but a criterion by which one chooses a goal. Finally, it is not trivial.[31]

While Hyman's study focuses upon education as a value, it is evident that Williams would not consider education to be a value. Rather, he would consider education to be an example of an institution. While institutions and values are related, " . . . institutions are not identical with values; institutions are more specific than the values to be found in them, and the same basic value may be found in several different institutions . . ."[32]

It is evident that there is confusion with regard to the nature of values which results in disagreement about the nature of what we commonly refer to as the "American value system." Kluckhohn's comment concerning the confusion in discussions of the concept of "value" is cogent at this point.

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[29] Robin M. Williams, Jr., American Society (New York: Alfred A. Knopf, 1960), pp. 397-470.

[30] Ibid., p. 400.

[31] Ibid., p. 400.

[32] Ibid., p. 399.

> Much of the confusion in discussion about values undoubtedly arises from the fact that one speaker has the general category in mind, another a particular limited type of value, still another a different specific type.[33]

Many of the contradictions among such sociologists as Parsons, Hyman, and Williams concerning "values" are probably more apparent than real. Most can be explained by the fact that these writers are concerned with different levels of generality or abstraction. In the end, general agreement upon the question of class differentiated and common value systems will depend upon further conceptual clarification of the term, such as delineation of its dimensions and empirical research. Merton, concerning his own work, and Lockwood, in his discussion of Parsons' writings, make this last point.[34]

One approach to the question of whether American society is characterized by a common value system or a class differentiated value system which reconciles some of the differences among the writers previously mentioned is suggested by Rodman, and is referred to as "the lower-class value stretch."[35] Rodman identifies the lower-class value stretch as one of the mechanisms by which lower class individuals minimize the strains they face in attempting to obtain valued goals. Specifically, he means by lower class value stretch that:

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[33] Clyde Kluckhohn *et al.*, "Values and Value Orientations in the Theory of Action," *Toward A General Theory of Action*, ed. Talcott Parsons and Edward Shils (Cambridge: Harvard University Press, 1952), p. 412.

[34] Merton, *op. cit.*, p. 170. David Lockwood, "Some Remarks on 'The Social System'," *British Journal of Sociology*, VII (June, 1965), p. 137.

> . . . the lower-class person, without abandoning the general values of society, develops an alternative set of values. Without abandoning the values placed upon success, such as high income and high educational and occupational attainment, he stretches the values so that lesser degrees of success also become desirable.[36]

As an example, Rodman cites the stretching of the value of marriage and legitimate children to include nonlegal union and illegitimate children. Another example would be the stretch from desires for high educational attainment such as a college education to lesser attainment such as business school diploma or trade school education.

The assumption underlying the concept of the value stretch is that individuals, when faced with the impossibility or perceived impossibility of attaining a desired goal, may modify the goal so as to bring it within the realm of possible attainment. Rather than reject the goal or valued end, the individual modifies it through this process of value stretch. Of course, the individual may retain the original goal and modify the means of its attainment, as Merton indicates.[37] Whether the individual modifies the goal or the means to its attainment may be a function of the characteristics of the goal, itself. Thus, it would appear that the individual who values a high amount of education has fewer available viable alternatives as means to attaining this goal than the individual who values money. The person desiring a high education can adapt such means as cheating on examinations, but this does not provide him with the valued object. Modification of the means for attaining money, such as theft, does result in its achievement. Therefore, it is possible that the individual desiring a high education but who believes its attainment impossible will modify the goal since alternative means for its attainment are scarce.

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[35] Rodman, _op_. _cit_., pp. 205-215.

[36] _Ibid_., p. 209.

Rodman succinctly presents the meaning of the lower class value stretch by means of the fable of the fox and the grapes.

> The fox in the fable declared that the unattainable sweet grapes were sour; Merton's 'rebellious' fox renounces the prevailing taste for sweet grapes; but the 'adaptive' lower-class fox I am talking about does neither--rather, he acquires a taste for sour grapes.[38]

To this, we would add that the adaptive fox continues to admit that the sweet grapes are sweet.

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[37] Merton, op. cit., pp. 131-160, passim.

[38] Rodman, loc. cit.

The concept of the lower class value stretch aids in reconciling some of the apparent contradictions between the idea of a common value system and a class differentiated value system. It admits that members of the lower classes do share in a common societal value system while also admitting that they share values unique to their class. That is, both theories are seen as correct yet incomplete, and are seen as complements to one another.

Recently, Rodman has provided empirical evidence supporting the thesis of a lower class value stretch.[39] On the basis of data from 176 respondents from Trinidad, he tests and validates, among others, the hypotheses that social class status is inversely related to the acceptance of nonlegal marital unions and, therefore, to value stretching. Although this study might be criticized as not applicable to American society, Rodman's reasoning appears to hold for American society.

The present investigation is based upon the acceptance of Parson's and Merton's thesis that commonly shared general values underlie social institutions. It also, however, takes account of the suggestions that particular values may vary in the degree of their acceptance among the various classes. Thus, while education may be a general value in American society, the type and amount of education valued (a specific value) may vary among different social groups.

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[39] Hyman Rodman, "Illegitimacy in the Caribbean Social Structure: A Reconsideration," American Sociological Review, XXXI (October, 1966), pp. 673-683.

## 2. Social Stratification and Aspirations

The present section examines research which sheds light upon the question of determinants of aspirations. As was mentioned earlier, many of the determinants of educational aspirations also have been found to be determinants of occupational and other types of aspirations. Therefore, although we shall be most concerned particularly with those studies which have as their focus of investigation educational aspirations, we have made no attempt to segregate them from studies of other types of aspirations when it was felt that these other studies were relevant.

Various approaches to the study of man's aspirations are to be found in the literature of the Social Sciences. Ralph Turner has identified many of these.[40] Bogardus, for example, tabulated qualities of prominent individuals which he derived from their biographies.[41] This tabulation of personal qualities and experiences was, in effect, a search for variables which might explain an individual's social prominence. As the Social Sciences became more sophisticated, both theoretically and methodologically, other investigators attempted new modes of inquiry. Lewin and his followers devised experimental modes of investigating aspirations within the laboratory setting.[42] McClelland attributes aspirations to a personality factor--the achievement motive--which is a result of certain types of child rearing practices.[43]

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[40] Ralph Turner, The Social Context of Ambition (San Francisco: Chandler Publishing Company, 1964), pp. 1-3.

[41] Emory S. Bogardus, Leaders and Leadership (New York: D. Appleton-Century, 1934).

One of the early studies with a distinctively sociological orientation was conducted by Kahl in conjunction with Harvard University's "Mobility Project."[44] This exploratory study had as its focus "exploring the social influences which help to account for differences in motivation--more specifically, the motivation to go on to college--among high school boys of similar background and intelligence level."[45] A purposive subsample of twenty-four "common man" or working-class sophomore and junior boys from the original sample of the Harvard University Mobility Project was drawn. Besides having common class backgrounds, all the boys had the required intelligence to go to college. However, only twelve were planning to attend. Kahl and his associates conducted intensive interviews with the boys and their parents. Kahl's findings indicate that the strongest factor in determining a boy's aspiration for a college education was parental pressure. Although all of the boys had similar family origins, some of their parents were content with their way of life while others were not. Those parents who were dissatisfied with their own position tended to instill in their child, from the earliest years, the value of education as a means of "getting ahead." Those boys who internalized this value were the ones desiring a college education. As Kahl observed:

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[42] Kurt Lewin, Tamar Bembo, Leon Festinger and Pauline S. Sears, "Level of Aspiration," Personality and Behavioral Disorders, ed. J. McVeigh Hunt (New York: Ronald Press, 1944).

[43] David C. McClelland, The Achievement Motive (New York: Appleton-Century-Croft, 1953).

[44] Joseph A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, XXIII (Summer, 1953), pp. 186-203.

[45] Ibid., p. 186.

> The interviews indicated that the boys learned to an extraordinary degree to view the occupational system from their parents' perspective. They took over their parents' view of the opportunities available, the desirability and possibility of change of status, the techniques of change to be used if change was desired, and the appropriate goals for boys who performed as they did in school.[46]

Related to Kahl's study in design and supportive in findings is the study of Cohen's.[47] She was primarily interested in educational mobility as a function of parental influence on boys' educational plans. A structured interview was administered to each parent of fifty junior and senior boys definitely planning to attend college. The same structured interview was administered to parents of fifty junior and senior boys definitely not planning to attend college. Both groups of boys were from the same working-class background, and were further matched with regard to ethnicity, school, and intelligence.

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[46] *Ibid.*, p. 202.

[47] Elizabeth G. Cohen, "Parental Factors in Educational Mobility" (Unpublished Ph.D. dissertation, Department of Sociology, Radcliffe College, 1958).

Cohen's findings are almost entirely in agreement with those of Kahl. Students planning to go to college had parents who encouraged this from childhood and also had middle-class occupational aspirations for their sons.

While the generality of both Kahl's study and that of Cohen's can be questioned because of the small samples employed in each (twenty-four in the former and fifty in each of the two categories of the latter), and because the samples are limited to working-class boys, their conclusions have been supported by studies involving larger samples of all classes of students. For example, in a study of 9,573 seniors, both male and female in schools in Ontario, Canada, the investigator found a high positive relationship between the students' responses to a question asking for their parents' feelings about a university education and the students' plans to attend college.[48] In addition, this study also revealed that parental attitudes were related to whether the student did, in fact, attend college.

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[48] W. G. Fleming, Background and Personality Factors Associated With Educational and Occupational Plans and Careers of Ontario Grade 13 Students (Toronto: Department of Educational Research, Ontario College of Education, University of Toronto, 1957.

It is evident from the research cited above, and from other studies which shall be reviewed here, that students' educational aspirations are directly influenced by parental values and attitudes about education. These values and attitudes are transmitted through the process of socialization. They determine the direction of parental pressure, either opposed to or in favor of continued education, which is oriented to the son or daughter.

Parental values and attitudes concerning education are the basis of parental aspirations for their children. That is, they are a necessary condition for parental pressure for continued education. It has been suggested that these parental aspirations, in turn, are related to social class position. Hollingshead suggested this in his study of Elmtown.[49] He characterized the children of the five classes he identified and the expectations of their parents. For example, in discussing Class I and II boys and girls, he states:

> . . . educational motivation is derived from the student's experience in his class and family culture. The Class I and II boys and girls know that high grades are necessary if they are to achieve the educational goal *set for them by their family* and class . . . *for most, high school is merely a preparatory step for college.*[50] (Italics mine.)

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[49] Hollingshead, *op. cit.*, pp. 175-178.

[50] *Ibid.*, p. 176.

Class III is somewhat mixed, being composed of families secure in their position and the "newly arrived." The latter place great emphasis upon education. Similarly, at the lower levels of the social class hierarchy, education is valued less and less by parents and students.

Hyman provides further data on the degree to which education is valued by the individuals in the different classes. In analyzing data from a 1947 nationwide study by National Opinion Research Center, he reports that in response to the question "About how much schooling do you think most young men need these days to get along well in the world?", 68 percent of those in the "wealthy and prosperous" category considered a college education necessary. Only 39 percent of those in the "lower-class" category so responded.[51] He provides similar evidence from other studies to reach the conclusion that " . . . whatever measure of stratification is employed the lower groups emphasize college training much less."[52]

A study by Stinchcombe also provides evidence of the direct, positive relation of parental urging of students to attend college and to take college preparatory courses while still in high school with social class.[53]

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[51] Hyman, _op_. _cit_., pp. 429-430.

[52] _Ibid_., p. 430.

[53] Arthur L. Stinchcombe, "Social Sources of Rebellion in a High School" (Unpublished Ph.D. dissertation, Department of Sociology, University of California at Berkeley, 1960).

We have thus far considered two factors determining an individual's level of educational aspiration. An excellent study and analysis dealing with the effects of these two variables is Bordua's.[54] It is worth considering this study in some detail.

Bordua identified the variables of sex, socioeconomic status and religious affiliation to be investigated with regard to their relationship to college aspirations.[55] In addition, he analyzed these relationships to determine their mutual independence and the degree to which parental stress on college accounted for group differences in educational aspirations.[56]

Data were collected on a sample of 1,529 ninth through twelfth grade students in Massachusetts. Bordua found both sex and socioeconomic status, as measured by father's occupation, to be positively related to college plans. Larger proportions of boys from families of high socioeconomic statuses. A greater proportion of males intended to attend college than females. When the relationship between sex and college plans was examined, controlling for socioeconomic status, the difference was not diminished. There was, however, a tendency for the differences to be reduced at the upper levels of the socioeconomic status hierarchy. Bordua concludes that " . . . these variables are related to college plans and independently related."[57]

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[54] David J. Bordua, "Educational Aspirations and Parental Stress on College," Social Forces, XXXVIII (February, 1960), pp. 262-269.

[55] Because the students' religion will not be of concern in the present research, Bordua's findings of the influence of religion on students' college plans is not reported.

[56] Bordua, op. cit., p. 262.

The author next examined the original relationships between sex and socioeconomic status to college plans when controlling on parental stress. That is, he wanted to determine the degree to which these relationships were "due to differential stress on college by parents of boys as opposed to girls, high occupational levels as opposed to low . . ."[58] The analysis leads Bordua to conclude that the original sex differences in college aspirations was substantially reduced with the control of parental stress. Also, the effect of socioeconomic status was reduced by the parental stress control, but there was an evident residual effect.[59]

Two studies which lend support to the importance of parental stress in determining levels of educational aspirations are those conducted by Bell and Simpson.[60]

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[57] Ibid., p. 266. [58] Ibid. [59] Ibid., p. 269.

[60] Gerlad D. Bell, "Processes in the Formation of Adolescents' Aspirations," Social Forces, XXXXII (December, 1963), pp. 179-186; Richard L. Simpson, "Parental Influence, Anticipatory Sociolization and Social Mobility," American Sociological Review, XXVII (August, 1962), pp. 517-522.

Both authors conclude that parental stress is the better predictor of educational aspirations than is family class position.

Ralph Berdie's study of approximately 25,000 Minneapolis students was designed to investigate both educational plans and actual behaviors as related to a variety of independent variables.[61] Berde described the characteristics of those students planning to attend college.[62] Of those planning to attend, 8,943 students, statistically significant sex differences appeared. A five percent greater proportion of boys intended to attend than girls; among those students intending to go to work, a greater proportion were girls. Father's occupation was one of the most significant factors relating to plans to attend college. Also, as would be expected, a high percentage (80 percent) of those planning to attend college reported that their families wanted them to go. The student's response to this question can be considered to be a measure of his perception of his parents' educational values, resulting in stress on college.

Recently, a number of students have focused upon certain contextual variables such as community and neighborhood as important determinants of high school students' college and vocational plans. Although an individual's actual college plans are not identical to his educational aspirations, we assume that for those definitely intending to attend college, high aspirations are a necessary condition. A survey of college plans of Wisconsin high school seniors, conducted in 1957, has resulted in many research reports with a great number of them dealing with contextual variables.[63] Although the present study is not directly concerned with the influence of contextual variables on educational aspirations, some of the findings of these studies do provide further information on determinants of educational aspirations.

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[61] Ralph F. Berdie, After High School--What? (Minneapolis: The University of Minnesota Press, 1954).

[62] Ibid., pp. 112-134.

In Sewell's study of "Community of Residence and College Plans," the major aim was to determine if the relationship between the individual's community of residence has an effect on college plans independent of that of socioeconomic status, sex and I.Q.[64] To test this relationship, of course, Sewell first demonstrates the relationship of each variable to college plans. In his analysis, he finds all three variables to be positively related to college plans. For boys, I.Q. is somewhat more strongly related to college plans than is socioeconomic status. For girls, however, socioeconomic status is the better predictor. On the basis of the entire sample, Sewell concludes that "the relation of socioeconomic status to college plans is at least as strong as the one pertaining to ability."[65] Similar conclusions are reached concerning these variables in the other related studies based on the Wisconsin data.

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[63] Archie O. Haller and William H. Sewell, "Farm Residence and Levels of Occupational and Educational Aspiration," American Journal of Sociology, LXII (January, 1957), pp. 407-411; William H. Sewell, "Community of Residence and College Plans," American Sociological Review, XXIX (February, 1964), pp. 24-38; William H. Sewell, "Community of Residence and Occupational Choice," American Journal of Sociology, LXX (March, 1965), pp. 551-563; William H. Sewell and J. Michael Armer, "Neighborhood Context and College Plans," American Sociological Review, XXXI (April, 1966), pp. 159-168.

[64] Sewell, "Community of Residence and College Plans," p. 26.

From the studies reviewed, we can identify a number of variables which predict students' educational aspirations. Sex, socioeconomic status, parental stress, father's occupation and I.Q. have been shown to be of considerable influence.

If we had a measure for each of these variables, we could locate an individual student in a multiple dimensioned space and predict aspirations for groupings of similar students. However, our predictions undoubtedly would be largely false; for, none of these variables can account for the events and interactions experienced by the individual which we hypothesize will modify a student's aspirations and accentuate social class difference to which we now turn.

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[65] *Ibid.*, p. 28.

In contemporary American society, a substantial portion of each young person's life is spent in school. It is reasonable, therefore, to assume that the school--including teachers, peers, course work and activities--is a significant arena of interaction and experience in determining the individual's aspirations for further education. This, in turn, has results for the type of life the individual will live.

The relationships between social class and school experiences and performance were suggested by Hollingshead.[66] Curriculum enrollment, participation in extra-curricular activities, grade achievement and plans for college were all related to the social class position of the student. Although Hollingshead does not deal directly with students' educational aspirations as a function of their school experiences, he does describe the differential attitudes toward and treatment of students from different class backgrounds. This differential treatment may have consequences for the student vis-a-vis his desire for further education.

Most studies which have focused on the effects of the school upon students' aspirations have either centered upon the "climate" of the school as the determining factor,[67] or the student-peer group relations as the determining factor. We shall not be concerned particularly with questions of school climate in the present research. However, the relationship of the student to his peers is of direct importance and we shall briefly consider some of the studies dealing with this influence.

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[66] Hollingshead, op. cit., pp. 163-203.

[67] See, for example: John A. Michael, "High School Climates and Plans for Entering College," Public Opinion

Haller and Butterworth found inconclusive results when they tested the hypothesis that interaction with peers influence levels of educational and occupational aspirations.[68] The authors concluded:

> As predicted by the hypotheses, a positive intraclass correlation of close friends' levels of occupational and educational aspiration was found in most of the tests. This holds, but with less certainty, even under most of the more rigorous of the varying conditions. The evidence regarding the hypotheses appears to provide a small degree of support for the aspect referring to levels of occupational aspiration, but it appears to provide little or no support for the aspect referring to levels of educational aspiration.[69]

It appears that rather than peer group interactions influencing educational and occupational aspirations, they

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Quarterly, XXV (Spring, 1961), pp. 585-955; Alan B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," American Sociological Review, XXIV (December, 1959), pp. 836-845; and, Paul Willin and Leslie C. Waldo, Social Class Background of 8th Grade Pupils, Social Class Composition of Their Schools, Their Academic Aspirations and School Adjustment (Stanford: Sociology Department, Stanford University, 1964).

[68] Archie O. Haller and C. E. Butterworth, "Peer Influences on Levels of Occupational and Educational Aspirations," Social Forces, XXXVIII (May, 1960), pp. 289-295.

[69] Ibid., p. 295.

reinforce already stabilized aspirations. This may emerge because students associate with peers of similar aspiration levels.

McDill and Coleman, rather than focusing upon peer group interactions, identified students as belonging or not belonging to the high status group ("leading crowd") in different high schools.[70] They found membership in a high status group was positively related to intentions to attend college.

Cutright was interested in the effect of the school in motivating students to aspire to college and to actually attend.[71] While he found the school to have no effect of actual college attendance, he did find it to have an effect on aspirations. This effect was more pronounced for girls than for boys.

Few other studies have dealt adequately with the effects of school experiences on student motivation. Although there is speculative material on this topic, the studies mentioned above appear to be most reliable in terms of empirical evidence provided.

The studies have reviewed have suggested a number of variables which have an important influence upon students' educational aspirations. Most important of these appear to be family socioeconomic status, family pressure and peer group influence. These variables, in turn, are related to the more general sociological literature dealing with the distribution of certain values in American society.

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[70] Edward L. McDill and James S. Coleman, "High School Social Status, College Plans and Academic Achievement," American Sociological Review, XXVIII (December, 1963), p. 905.

[71] Philip Cutright, "Students' Decision to Attend College," Journal of Educational Sociology, XXXIII (February, 1960), pp. 292-299.

The literature in the area of educational aspirations appears to be deficient in two major respects: the definition of the dependent variable itself, aspirations, and, the conditions under which the major independent variables affect variation in the dependent variable.

The majority of investigations dealing with students' educational aspirations have utilized a narrow definition of that term. In these studies, aspirations have been equated with some definite educational plan. Thus, for example, students planning to go to college have been categorized as having high educational aspirations. Students not planning to go to college are not considered to have high educational aspirations. What, in effect, this narrow definition of aspiration results in is a disregarding of those students who may in fact both value and desire a college education but who, for some reason, are not planning to attend college. The fact that a student does not plan to attend college does not mean he doesn't value education. Nor need it mean that influences, similar to those affecting students who do plan to attend, are not operative. Other conditions or counterpressures may be exerting an influence which impede his plans for college attendance.

This idea of other conditions or counterpressures brings us to the second major deficiency in the studies of students' educational aspirations. While the independent factors associated with various levels of educational aspirations have been identified and investigated, little attention has been directed to the investigation of the conditions which may modify the effect of these independent factors.

The present dissertation attempts to overcome the limitations of the previous research in the field by first employing a much broader definition of "aspiration" than heretofore employed. Secondly, conditions which may modify the effects of previously identified independent factors are investigated.

# II. RESEARCH DESIGN*

Discussion of the research design of the present investigation is organized into three sections, each dealing with a separate aspect of the study. These three aspects are: the general conceptual model, the operational model and operational definitions, including the statement of major hypotheses, and a discussion of the methods and the sample.

## A. The General Conceptual Model

The following general conceptual model has been derived primarily from the findings and theoretical orientations which have been fruitful in previous research dealing with the study of students' educational aspirations. In addition, the conceptual model also contains certain elements heretofore either unmentioned or organized differently in extant literature. This conceptual model represents a static presentation of the concepts employed to explain a complex series of dynamic social processes. The conceptual model is presented in Figure I.

From this diagram and from the problem statement presented in Chapter I, it is obvious that the phenomenon

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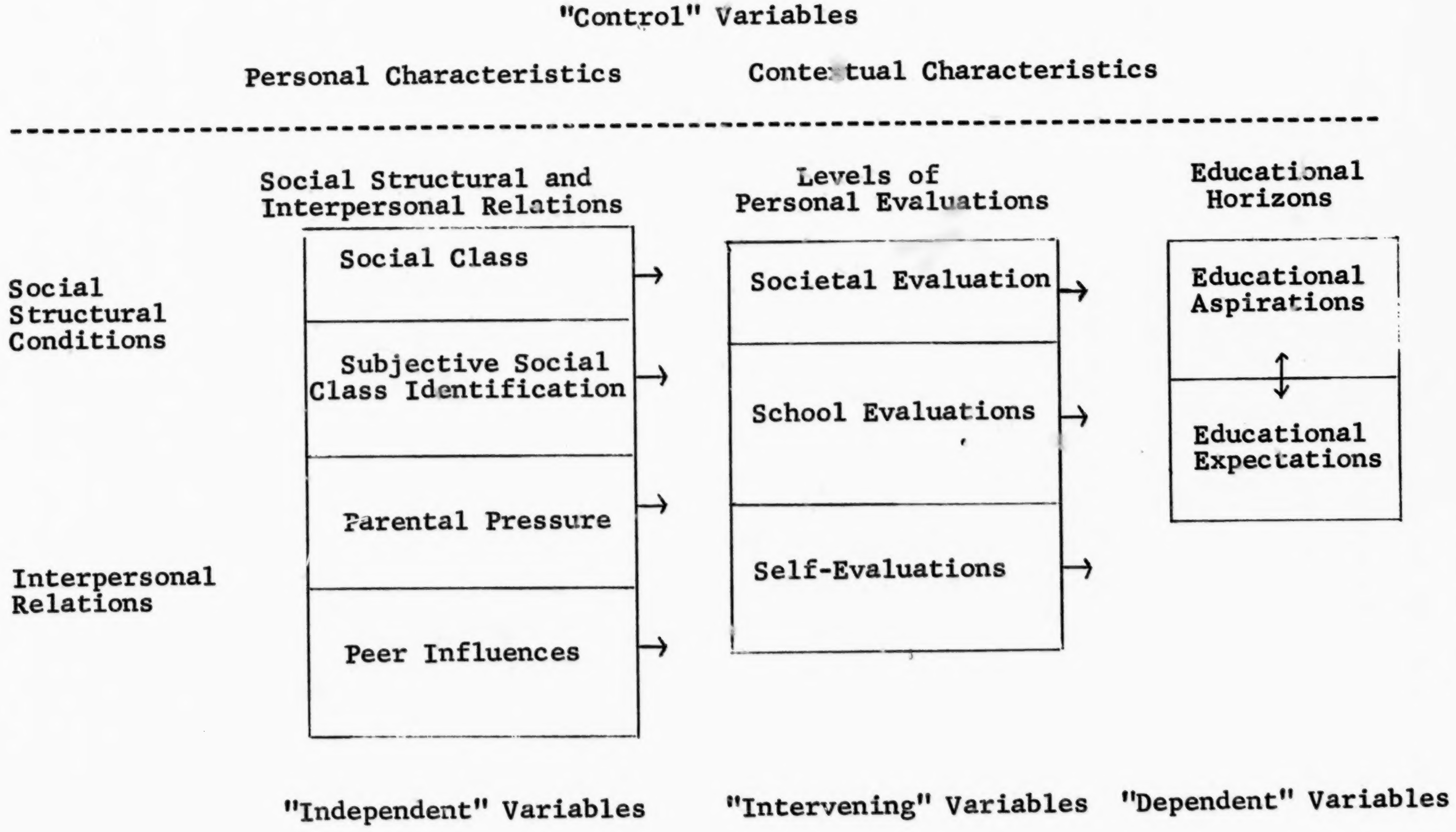
*The basic and applied research project is entitled "The Relationship Between Poverty and Educational Deprivation." The project is under the direction of Professor Edward A. Suchman, Professor of Sociology, and is funded jointly by the United States Office of Education (Grant Number OEC-1-6-061254-0809) and the Learning Research and Development Center of the University of Pittsburgh.

FIGURE I. THE GENERAL CONCEPTUAL MODEL


"Control" Variables
Personal Characteristics
Contextual Characteristics
Social Structural and Interpersonal Relations
Levels of Personal Evaluations
Educational Horizons
Social Structural Conditions
Interpersonal Relations
Social Class
Subjective Social Class Identification
Parental Pressure
Peer Influences
Societal Evaluation
School Evaluations
Self-Evaluations
Educational Aspirations
Educational Expectations
"Independent" Variables
"Intervening" Variables
"Dependent" Variables

we shall attempt to explain, the dependent variable, is that labeled "Educational Horizons." This phenomenon is subdivided into two separate, but related dimensions--educational aspirations and educational expectations. While we may expect these two dimensions to be highly interdependent, they yet remain conceptually distinct. The dimension of "educational aspiration" may be thought of as a specific value in itself in the sense that a value is a more or less desired object. The dimension of "educational expectation," on the other hand, is somewhat outside the realm of values. It is an evaluation or appraisal, realistic or nonrealistic, of the probability of being able or capable of achieving the desired goal.

The double arrow between these two dimensions of the more general concept of educational horizons indicates three conditions pertinent to the relationships between these secondary concepts. First, as defined, they are conceptually distinct. Second, there is no time ordering implicit in the manner in which the two dimensions are schematically presented. Specifically, we are not positing that aspiration for a given valued object precedes one's appraisal of ability or probability of achieving the object. Undoubtedly a firm case could be presented for this line of argument. However, an equally good case could be made for a diametrically opposed argument. Consider, as one instance, the following hypothetical case. An individual may desire some object and then proceed to obtain this object through certain means which he deems efficacious.[1] Given this aspiration and the availability of the means to him, he will expect to achieve the goal. On the other hand, it is also possible that an individual who is either certain of specific goals--such as inherited wealth--or who has "learned" what is expected of him, will desire to obtain the goals because his expectations of attaining them are high.[2] In the final analysis, the question of whether desires precede expectations or *vice versa* is one of empirical evidence, but one with which we cannot deal here.[3]

Finally, the double arrow indicates that we expect a high degree of interaction between these two dimensions. Again, this is a question calling for empirical evidence. This evidence will be provided in Chapter III.

Given variability in individuals' educational horizons, we now turn to an examination of those conditions which may help to account for this variation. The model presents two broad categories of such possible conditions: social structural and interpersonal ("independent" variables).

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[1] In the Horatio Alger myth, for example, the object desired is fame, wealth, success in general; the means, of course, are hard work, clean living, etc.

[2] For example, the many cases of physicians' sons who desire to become physicians may be due to both "learned" expectation and access to means--financial ability and preferential acceptance into medical school.

[3] It is quite possible that when speaking about broad groups of people, such as societies, we can find an answer to the question of time order. We might expect, for example, societies with an open class system of social stratification to be characterized by a desired object expectation ordering. A society with a closed class or caste system might be characterized by an expectation "desired" object ordering.

The relationship between individuals' positions within a society's social structure and their general values, "Weltanschaungen," and life chances has received continued investigation in the Social Sciences. Karl Marx, Thorstein Veblen and other classical sociologists as well as current investigators such as Hollingshead and Sexton supply abundant evidence and theoretical support for this relationship.[4] What specifically concerns us in this model is the relationship of social structural position to specific values and expectations of attaining these values. While Parsons is undoubtedly correct in positing that general values shared in common underlie the institutional structures of a society, this does not enable us to explain the existence of variation among individuals with regard to specific values.

The present model suggests that we first determine the degree to which the specific value of education varies as a function of social structural position and proceed from this point to explain why we find this variation. The answer to the "why" question is a search for conditions which modify the original relationship. That is, if the desire for a given specific value varies as a function of individuals' social class positions, we may make this as a statement of fact. However, this alone does not tell us why the desire for the valued object varies. The answer to this question must come from an examination of conditions derived from theory which should modify the relationship ("intervening" variables).

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[4] See, for example: Karl Marx, Manifesto of The Communist Party (Chicago, Illinois: Charles H. Kerr, 1888); Thorstein Veblen, The Theory of the Leisure Class (New York: Macmillan Co., 1899); August B. Hollingshead, op. cit.; Sexton, op. cit.

The second group of conditions which may influence the variation of desires for and expectations of attaining specific goals are identified as being interpersonal in nature. Whereas the individual is generally unaware of the influence of social structural conditions which help to determine his acceptance or rejection of specific goals and his expectations of attaining them, he is often aware of interpersonal influences predisposing him to desire or expect them. This is probably the case because of the much more immediate and visible effect of interpersonal influences. Interpersonal relations, as they influence personal desires, may be viewed as a mechanism of control employed by "significant others" to bring the individual into conformity with group expectations. As a means of control, a variety of sanctions, positive and negative, may be invoked. On the positive side, sanctions may involve material rewards for behavior conforming to group expectations or simply social acceptance. The son who is promised a new car, or the daughter new clothes, upon graduation from high school and because they are going to college, are examples of the positively and materially rewarded. Or, acceptance into a high status high school clique may, in part, be determined by expressed desires and expectations of college plans. Negative sanctions, on the other hand, may be expressed in acts of withholding positive sanctions, withdrawing of previously granted rewards, ostracism, etc. Thus, for example, the student who graduates from high school but who does not plan to continue his education may not receive expensive graduation gifts, may have his allowance discontinued since he is now "on his own," etc.

As with social structural conditions, interpersonal relations alone do not explain "why" or under what circumstances the pressures brought to bear upon the individual will influence one person to desire a particular goal and expect to attain it--a college education--while another apparently similar person will reject the same goal. We now turn to an examination of some of these modifying conditions.

Conceptualized as modifying the relationships between the social structural and interpersonal conditions to individuals' educational horizons are three levels of personal evaluations (the "intervening" variables). These evaluations may be thought of as personal definitions, perceptions, and interpretations of social and social psychological "reality."

The most general level of personal evaluation in the model is that of societal evaluation.[5] It is hypothesized that specific values, such as educational aspirations, are meaningful only to the extent that one views society as stable and one feels one "belongs" to that society. If specific values or goals are to be pursued so as to enable one to function in society, but the society itself is rejected or is defined as lacking direction, then these specific goals themselves may become largely ill-defined and meaningless. If the goal itself becomes meaningless, then the expectation of attaining the goal is also meaningless.

The effect of "being outside society" in the sense that one rejects dominant societal values or sees society as being unstable, upon the pursuance of specific goals has been examined by Keniston.[6] His case studies indicate that individuals who feel alienated from society generally do not desire to pursue or obtain specific goals generally valued by members of society.

The second level of evaluation concerns that of the organization or institution responsible for the "socialization" of individuals toward the desired goals. In this case, this represents training in the skills necessary for either pursuing further education or being able to operate adequately in society without more education. This is the major function of the school. It is hypothesized that the degree to which one evaluates the school negatively will, in turn, reduce the desire for higher education. Thus, desires for further experiences within the organization may be lowered if one defines the school experience negatively.

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[5] We use the term "general" to refer to the degree to which the phenomenon being evaluated is removed from the individuals doing the evaluation and not to the abstractness of the concept.

[6] Kenneth Keniston, The Uncommitted (New York: Delta Publishing Co., 1960).

The effect of organizational experiences, as perceived by participants, have consequences for the participants' behavior in the organization.[7] In large measure this is the appropriate process by which role behavior is learned in organizations. For example, the aspiring young executive is aware of the reactions of others, particularly significant others, above him in the organizational status hierarchy, and modifies his behavior to conform to his perceptions of their expectations.[8]

The student, as a participant in the school organization, also learns specific role behaviors. Often, the role of student--obedient, respectful, courteous, etc.--is the one most valued by school authorities. However, many students, in "learning" these appropriate behaviors, will encounter negatively evaluated experiences. These negative experiences generally are in the form of negative sanctions imposed by the teacher probably have the manifest function of eliciting conforming behavior which permits the continued smooth operation of the organization. However, these negative sanctions also may have the latent dysfunction of instilling in the students not only negative evaluations of the organization _per se_, but also of the goals of the organization.[9]

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[7] See, for example: Peter M. Blau, Bureaucracy In Modern Society (New York: Random House, 1965); Wilbert E. Moore, The Conduct of The Corporation (New York: Vintage Books, 1966); and William H. Whyte, Jr., The Organization Man (New York: Doubleday & Company, Inc., 1956).

[8] In the case of certain "total institutions" such as prisons or mental hospitals, organizational participants may not conform to perceived expectations voluntarily. In these types of organizations, appropriate role behavior may be elicited by the use of physical coercion or the use of other strong negative sanctions. See: Irving Goffman, Asylums (Glencoe, Illinois: The Free Fress, 1960).

The final and most specific level of evaluation hypothesized as modifying the relationships between social structural conditions, interpersonal relations and educational horizons is that of self-evaluations. Self-evaluation is a social psychological process wherein the individual treats himself as object and develops general and specific attitudes toward the self object. These self-evaluations develop, at first, within a child primarily in the family context, especially in the course of his interaction with significant others. They are continually modified, on the basis of new inputs, as the child matures and begins to interact with others in different contexts of socialization, i.e., the clique, school, etc.

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[9] For a discussion of the differences between manifest functions and latent dysfunctions, see: Robert K. Merton, _op_. _cit_.

In addition to the work of Rosenberg with the concept of self-image, Coleman has recently presented further evidence of the importance of self-evaluations to academic achievement.[10] His findings further support the inclusion of this concept in the general conceptual model.

As with the other levels of personal evaluations, the concept of self-evaluation is also a personal, situational definition. In the present investigation, we will expect that an individual's definition of the situation--a particular self-evaluation--will result in real effects.[11] Thus, we will expect individuals' self-evaluations to significantly modify social structural and interpersonal influences upon their educational horizons.

Within the general model, two further conditions are suggested as altering the relationships thus far discussed. These conditions are personal characteristics of the students and contextual characteristics of the school (the "control" variables). By personal characteristics we mean those qualities of individuals which locate them within large social categories in society. The personal characteristics presented in the model are age and sex.

Every society has norms which prescribe certain behaviors and proscribe other behaviors on the basis of the sex and age of individuals. Thus, we speak of sex-linked and age-linked roles. As the individual matures in age, he is also being socialized to perform behaviors appropriate to both his age and sex. That is, he is learning role behavior. We would expect both age and sex to be an important influence on educational aspirations, therefore, because education is itself a requirement for a particular role--the occupational role. Individuals' educational aspirations should vary depending upon both their age and sex. Thus, these two personal characteristics are included in the model to distinguish among different categories of students who are at different stages of the socialization process and, therefore, have differing conceptions of appropriate sex and age roles.

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[10] James Coleman, op. cit.

[11] Robert K. Merton, op. cit.

The contextual characteristics are characteristics acquired in the school organization. As a means of classifying students, most contemporary schools use the categories of grade and course of study. A student's grade is both a category of age and accomplishment in school. We would expect, therefore, students' ages to be highly related to their grade in school. The course of study in which a student is enrolled may be considered an indication of his future educational plans.

The relationships between social structural and interpersonal relations upon educational aspirations of students can be expected to vary depending upon the contextual characteristics identified. Students in higher grades are older and, therefore, more aware of the appropriate age and sex roles they must assume as discussed previously. Also, they are closer to the time at which they must make a decision concerning preparation for their occupational roles. Students in different courses of study must make decisions about their preparedness to pursue higher degrees of education.

The general model has been presented as a series of concepts meaningfully organized to offer a possible solution to the major problem presented in Chapter I. Namely, are certain social structural positions of students and interpersonal relations between students and others associated with variations in educational horizons among students? Further, if variations in students' educational horizons do occur according to social structural and interpersonal conditions, can certain types of personal evaluations "explain" why these variations occur?[12]

## B. The Operational Model and Hypotheses

Having presented a general conceptual model for analyzing the major problem, we may now present a more specific model which indicates the major empirical indexes to be used in the present investigation. This model is presented in Figure II.

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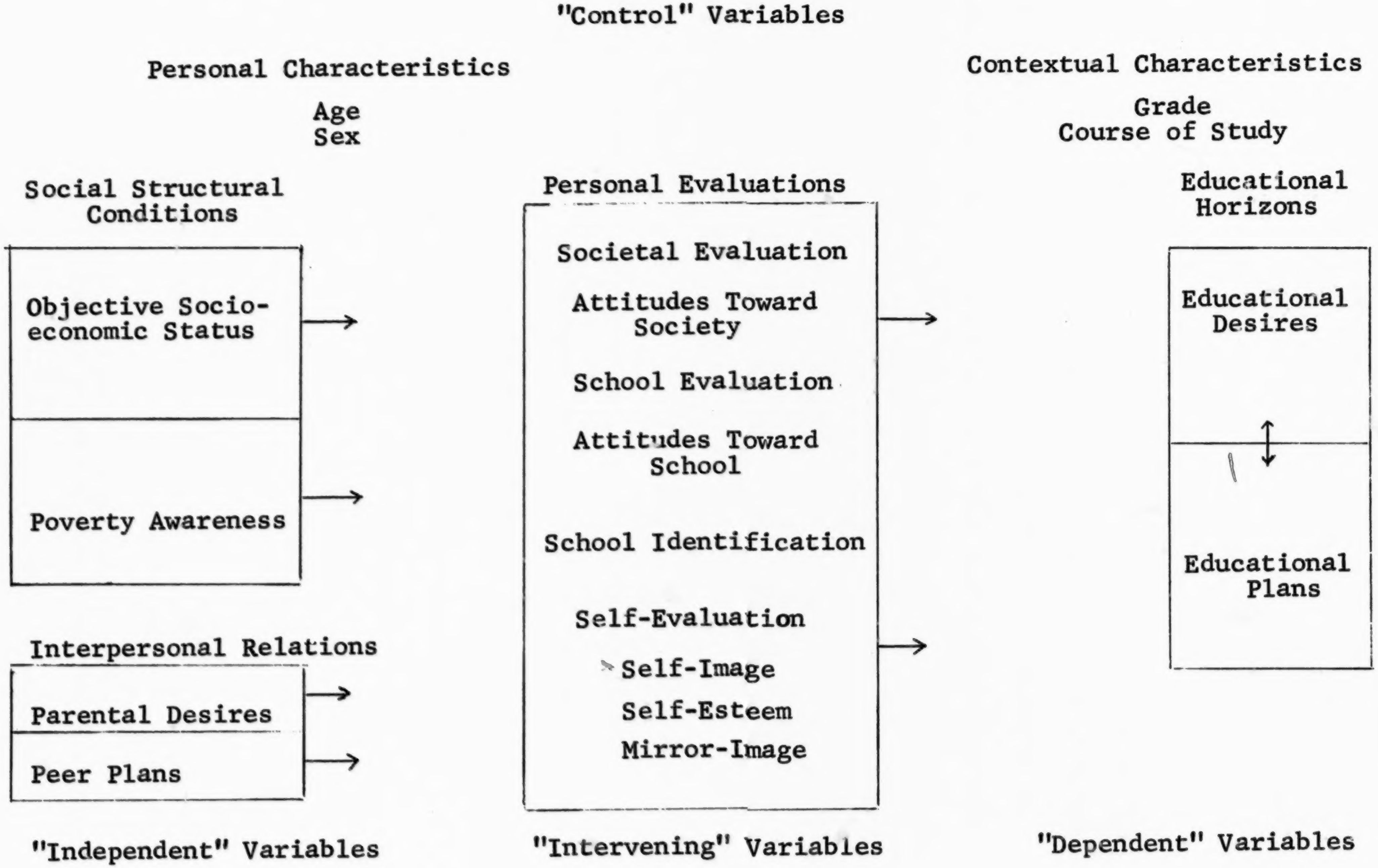
[12] The question of "can" certain conditions lead to variations in students' educational horizons is different than the question "do" the conditions lead to these

FIGURE II THE OPERATIONAL MODEL


"Control" Variables
Personal Characteristics
Age
Sex
Contextual Characteristics
Grade
Course of Study
Social Structural Conditions
Objective Socio-economic Status
Poverty Awareness
Interpersonal Relations
Parental Desires
Peer Plans
Personal Evaluations
Societal Evaluation
Attitudes Toward Society
School Evaluation
Attitudes Toward School
School Identification
Self-Evaluation
Self-Image
Self-Esteem
Mirror-Image
Educational Horizons
Educational Desires
Educational Plans
"Independent" Variables
"Intervening" Variables
"Dependent" Variables

### 1. "Dependent" Variables

Students' educational horizons is the major phenomenon to be explained and has been conceptualized as consisting of two dimensions--"educational aspirations" and "educational expectations." Operationally, educational aspirations are defined and measured as students' expressed desires for the attainment of various levels of schooling. Any given educational aspiration may be considered to be an expression of value for that level of educational attainment desired. In other words, we shall not address the question "Does a student value education?"; rather, we shall ask, "What level or degree of education does a student desire?"

Distinct from educational aspirations are educational expectations. Operationally, these represent students' realistic judgements of the probability of attaining the desired object, i.e. level of education, and their plans based on this assessment of probability.[13]

### 2. "Independent" Variables

The indexes of "socioeconomic status" and "poverty awareness" are employed in the present investigation as operational measures of social structural conditions

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variations. The difference is between necessary and sufficient conditions.

[13] The items used to measure students' educational desires and plans are given in Appendix B, pp. 198-199.

influencing students' educational horizons.[14] Socioeconomic status refers to a student's social position in the community which he occupies by virtue of his family's social position. This social position is operationally measured by the construction of an index based upon the educational and occupational level of the father.

Poverty awareness, the operational measure of subjective class identification, refers to a student's perception and definition of his family's social position relative to the families of others in his social sphere. Whereas the objective socioeconomic status of the family is independent of anything the student may feel, his poverty awareness is a matter more of his own definition of the situation. Thus, the measure of poverty awareness consists of a series of questions concerning the student's evaluation of his family relative to others. The effects of a student's poverty awareness may be as significant as socioeconomic status upon his educational horizons.

The interpersonal relations operationalized as influencing educational horizons are parental desires and peer plans. The role of parental desires has been well documented.[15] It should be noted that parent-student relations are referred to as "pressures" as different from peer "influences," in Figure I, to denote the possible differences in sanctions wielded by the two groups. Also, parental desires for their children's educational futures are likely to be experienced as pressure because of the time factor involved.[16]

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[14] The items used to measure socioeconomic status and poverty awareness are given in Appendix B, pp. 183-189.

[15] See Chapter I, pp. 25-31.

Peer plans may be expected to influence a student's values and behavior in three ways. First, a student is likely to associate with those who have similar values and aspirations. In this instance the peer influences are reinforcing to already existing values. Secondly, peer plans may restore the educational values of students to the group's values when these are in conflict with peer expectations. In order to maintain existing peer associations, the student may adjust his aspirations to meet their expectations. Finally, peer plans may affect a student's values, and especially aspirations, through the process of anticipatory socialization.[17] That is, in order to gain acceptance by a certain group, a student may adopt the values and behavior of the members of that group.[18]

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[16] Parental expression of desires for their children's educational plans may begin quite early in the child's life. Peer group influences are likely to be of a considerably shorter duration.

[17] Robert K. Merton and Alice S. Kitt, "Contributions to the Theory of Reference Group Behavior," in Robert K. Merton, Paul F. Lazarsfeld (eds.) Continuities in Social Research in the Scope and Methods of "The American Soldier," (Glencoe, Illinois: The Free Press, 1950), pp. 40-105.

[18] The questions used as indexes of parental desires and peer plans are given in Appendix B, pp. 190-191.

### 3. "Intervening" Variables

The three levels of personal evaluations previously discussed are composed of a number of specific dimensions. Attitudes toward society represents the most general level of evaluation. As previously indicated, this concept refers to an evaluation of social stability. The items used to operationalize this evaluation are concerned with general feelings about social stability as well as the reliability and predictability of members of society.[19]

Evaluations of the school organization consist of two types, referred to as attitudes toward school and school identification. Attitudes toward school refers to students' evaluations of the effectiveness of and manner in which the school, with its function of educating, is achieving this goal. School identification, on the other hand, refers to the students' identification with the school and classmates as a social group. The distinction between attitudes toward school and school identification is one of the differences between educational efficiency and social importance. This distinction becomes clear if we examine the operational measures of these two concepts.[20] Those items used to measure students' attitudes toward school focus upon the school as an organization the purpose of which is to educate. School identification, on the other hand, refers to the students' feelings of involvement with their particular school and the degree to which they "fit in" with it. It is suggested that both these concepts are primarily determined by experiences in the school organization.

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[19] The questions used to measure attitudes toward society appear in Appendix B, pp. 192-193.

[20] The operational measures appear in Appendix B, pp. 194-195, and Appendix C, pp. 201-202.

The most specific level of personal evaluations conceptualized as modifying the effect of social structural conditions and interpersonal relations upon students' educational horizons is self-evaluation. The model presents three related specific dimensions of self-evaluation. As was indicated earlier, all self-evaluations involve treating the self as the object toward which attitudes and perceptions are held. "Self-image" refers to the individual's perception of self in terms of specific concrete, socially important attributes. Self-image is less an attitude than a self-description or a perception of self in terms of concrete descriptive characteristics. Of course, one's self-image may, in part, derive from one's attitudes toward the self.

Self-esteem, as discussed by Rosenberg, also involves treating the self as object.[21] However, as distinct from self-image, self-esteem involves a consideration of the individual's general attitudes toward the self. These general attitudes concern evaluations of personal worth and efficacy as opposed to self-descriptions.

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[21] Morris Rosenberg, _op_. _cit_.

Finally, "mirror-image" refers to the student's perceptions of how his teachers "see" him in concrete, descriptive terms. Thus, whereas the self-image may be characterized as "a look into the mirror," mirror-image might be "a look into the eyes of others." The distinction between these two is the distinction between treating the self as object (self-image) and treating the self as subject (mirror-image). The operational definitions also suggest the difference. To measure self-image, students are asked to respond to a list of adjectives in terms of the degree to which these adjectives do or do not describe them. The measurement of "mirror-image," however, requires the students to "take the role of the other." That is, the student is asked to respond to the same list of adjectives as he feels his teachers would respond in describing him.

It should be expected that the three concepts of self-evaluation will be highly interrelated. There appears to be no reason or means by which to suggest that one develops in the child previous to the others. Rather, it would appear, that one's self-image and self-esteem develop simultaneously during the course of socialization and in the process of interaction. These, in turn, play a significant part in forming the mirror-image which reflects back upon one's self-image. Undoubtedly, the three self-evaluations continue to interact upon one another.[22]

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[22] The actual descriptive adjectives used in operationalizing the different dimensions of self-evaluation

## 4. "Control" Variables

The personal characteristics of students and the contextual characteristics of the school organization have been identified in the operational model as consisting of the following:

1. Personal Characteristics of Students
    - A. Sex
    - B. Age
2. Contextual Characteristics of School Organization
    - A. Grade
    - B. Course of Study

These four variables are viewed as defining important subgroups of the sample for which the hypothesized relationships in the model may be expected to vary.

First, considering students' personal characteristics, sex is considered to be a significant factor because of differing sex role definitions which exist in American society. During the process of socialization, the child learns not only role behaviors appropriate to his current status; he also learns that he is expected, in the future, to perform certain other roles on the basis of his sex status. Boys play roles they may later assume--fireman, policeman, doctor. Similarly, girls play nurse, teacher, mother--roles they may later take. These role behaviors,

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are presented in Appendix B, pp. 196-197 and Appendix C, pp. 203-205.

which the child learns, are linked with the statuses he holds and with those statuses he is expected to obtain.

To the extent that education is requisite for a given status, then we would expect individuals to pursue it so they may adequately perform the associated roles. However, if status achievement is not dependent upon education, its pursuance would not be expected. Thus, we suggest, boys and girls experience different desires and plans with regard to their educational horizons because of the efficacy of education in enabling them to perform roles associated with statuses they have learned they are expected to obtain.

The variable of age also defines subgroups of the sample in which we expect the hypothesized relationships to vary. However, whereas sex is regarded as an indicator of differing role expectations, age is considered to be an indicator of several phenomena.

First, age can be considered as an index of the stage in the socialization process which the child has reached. It is reasonable to assume that as the child grows older and, therefore, has been socialized longer, he more fully learns others' expectations of him. One type of expectation we may assume he has learned are the sex-linked roles.

Besides being an indicator of the stage reached in the socialization process, age is also an indicator of "nearness" to the time at which the student must make a decision concerning his future occupational goal. Thus, whereas the young child can make assertions about his intentions to become a doctor, fireman, etc., the older student must realistically appraise his desires and plans so that he may make appropriate arrangements to pursue them.

While both the variables of age and sex can be considered to define subgroups in which variation in the dependent variables--educational desires and plans--may be expected for the reasons already stated, the variable of age may also be expected to influence some of the independent and intervening variables identified in the model. Thus, while the family socioeconomic status is a given for the student, his poverty awareness is a measure of the degree to which he feels his family is like other families. This we would expect to vary as a function of age. It is only as the child gets older that he begins to compare himself to others in his social surroundings. Similarly, peer group and family pressures can be expected to vary for various age subgroups. The older the student, the longer he has been exposed to these types of pressure.

The contextual variables of grade and course of study also define significant subgroups of the sample. The variable of grade in school is believed to be important for several reasons. First, it indicates the length of time that a student has been in the school system. This certainly will affect the student's evaluation of school. Secondly, it indicates the length of time a student has been under the influence of peer group pressures. As the model indicates, these two variables are hypothesized as affecting students' educational horizons.

A student's course of study refers to the "track" or course of preparation in which the student is presently enrolled. Corresponding to each track is a series of courses which the student is obliged to take. The tracks themselves are geared to prepare students for various types of education, training or jobs after graduation from high school. Thus, for example, the college preparatory track requires students to take those courses necessary for admission to most colleges and universities. The vocational track, on the other hand, prepares students for manual occupations and does not require the student to take the same types of courses that other students in other tracks must take.

There are no standardized means by which students are placed in one of the various tracks. In some cases, the student may make this decision himself. In other instances, this "selection" is decided upon for him by the school counselor or his parents. The variable of course of study is important because it represents the present type of preparation the student is engaged in for his future educational plans.[23]

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[23] The questions used to measure the student's sex, age, grade and course of study appear in Appendix B, pp. 181-182.

## 5. Major Hypotheses

From the operational model presented, the following major working hypotheses have been derived and will be examined in the remainder of this dissertation.

Social Structural Hypotheses:

1. The higher the objective socioeconomic status of students, the higher their educational horizons.
2. The higher the socioeconomic status with which students identify, the higher their educational horizons.

Interpersonal Relations Hypotheses:

1. The higher the parental desires for students' education, the higher the students' educational horizons.
2. The higher the educational level that students' peers plan to attain, the higher the students' educational horizons.

Personal Evaluations Hypotheses:

1. The more positive students' attitudes toward society, the higher their educational horizons.
2. The more positive students' attitudes toward the school, the higher their educational horizons.
3. The more positive students' self-images, the higher their educational horizons.

Three Variable Hypotheses:

1. The more positive students' attitudes toward society:
    - A. the stronger the relationship between socioeconomic status and educational horizons.

B. the stronger the relationship between identification with a high socioeconomic status and educational horizons.

C. the stronger the relationship between parental desires and educational horizons.

D. the stronger the relationship between peers' plans and educational horizons.

2. The more positive students' attitudes toward the school:

   A. the stronger the relationship between socioeconomic status and educational horizons.

   B. the stronger the relationship between identification with a high socioeconomic status and educational horizons.

   C. the stronger the relationship between parental desires and educational horizons.

   D. the stronger the relationship between peers' plans and educational horizons.

3. The more positive students' self-images:

   A. the stronger the relationship between socioeconomic status and educational horizons.

   B. the stronger the relationship between identification with a high socioeconomic status and educational horizons.

   C. the stronger the relationship between parental desires and educational horizons.

   D. the stronger the relationship between peers' plans and educational horizons.

## C. Methods and Sample

The data for this study were obtained from the responses of 5,632 junior and senior high school students to a survey questionnaire.[24] It consisted of 193 precoded questions. These questions were derived from a review of the literature of other studies dealing with students and questions written for this study specifically.[25]

The student respondents attend seven schools in four school districts within the four-county Pittsburgh Standard Metropolitan Statistical Area. These schools represent a selection of schools from suburban-rural communities.

In each of the seven schools, the instrument was group-administered to all students present on the days of administration by the homeroom teachers. The time for completion of the questionnaire was fifty minutes. To avoid the possibility of consistently losing information from the last section of the instrument due to respondent fatigue, it was divided into two forms. These were administered on two consecutive days during the fall and winter of the 1965-1966 school year. Table 2.1 in Appendix B indicates the name and nature of the schools involved and the number of students in each school responding to both forms of the questionnaire.

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[24] The total questionnaire contained many more questions than are used in the present analysis. The specific questions used in the present analysis are presented in Appendix B, according to the operational indexes they define. The data analyzed in this dissertation have been collected as part of a larger study conducted jointly by the Learning Research and Development Center and the Department of Sociology at the University of Pittsburgh. This research project is entitled "The Relationship Between Poverty and Educational Deprivation." The project is under the direction of Edward A. Suchman, Professor of Sociology, and is funded jointly by the United States Office of Education (Grant Number OEC-1-6-061254-0809) and the Learning Research and Development Center of the University of Pittsburgh.

[25] Sources from which questions were taken appear in Appendix A, p. 179.

After the field administration was completed, all questionnaires were cleaned and items which were not precoded were coded. All information from the questionnaires was then punched onto IBM cards. These cards were then checked to insure as little "punching error" as possible. The error check was done in the form of range and consistency checks for each variable.[26] Finally, the IBM card data were then transferred to IBM magnetic tape for analysis.

The preliminary phases of analysis consisted of obtaining marginal distributions on the raw data for the total sample as well as marginal distributions for the individual schools.

On the basis of the total sample marginal distributions, individual items were either dropped because of skewed distributions; or, if retained, item categories were collapsed, where desirable. After obtaining new marginal distributions of collapsed items, a random subsample of 100 cases was selected for purposes of Guttman scale analysis. All scales were analyzed on the basis of this subsample. All factor analyses and Likert scoring were performed on the total sample.[27]

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[26] All data processing and the major portion of the analysis has been done with the IBM 7090 computer at the University of Pittsburgh Computation and Data Processing Center and is partially supported by NSF Grant G11309.

After all scales and scores were constructed, an analysis deck, consisting of one IBM card of information per person, was obtained. It was with this analysis deck that the major analysis for the present study was completed. The type of analysis performed is often referred to as "intervening variable analysis" and has been extensively explained and elaborated upon in the methodological literature.[28]

Corresponding to the type of analysis are the use of certain statistical manipulations. In this study, both simple and multivariate cross-tabulations are the major statistical technique employed. Chi square values, the number of degrees of freedom, and R values are reported.[29]

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[27] Coefficients of reproducibility for Guttman scales used in this study appear in Appendix B and C - All Guttman scaling and factor analyses were performed with the use of Biomedical Computer Programs. (Los Angeles: University of California School of Medicine, Department of Preventive Medicine and Public Health, Revised, September, 1965).

[28] See: Paul F. Lazarsfeld and Morris Rosenberg, The Language of Social Research (Glencoe, Illinois: The Free Press, 1958). Also, Paul F. Lazarsfeld, "Evidence and Inference in Social Research," in Daniel Lerner, (ed.) Evidence and Inference. (Glencoe, Illinois: The Free Press, 1959).

The following discussion of the sample of students investigated in this study will both describe the sample in terms of the personal and contextual characteristics presented in the study model and also define the relevant subgroups to be later utilized in the investigation and analysis of relationships.

Table 2.2 presents the distribution and relationship between students' ages and their grade in school. As would be expected, this relationship is extremely high. Students in the seventh grade are largely eleven to twelve years old. Thirteen and fourteen year olds make up the eighth and ninth grades. Thus, those grades usually identified as junior high school may be said to be composed of eleven to fourteen year olds. The senior high school grades, ten through twelve, are composed of students over fifteen years old.

Because of the extremely high relationship between age and grade in school, we may treat either variable as a measure of both. Since we are primarily interested in grade in school as a measure of the length of time the student has been in the system and the "closeness" to having to make a decision about higher education, we shall employ the variable of grade. Thus, in future analysis we shall use the variable of grade, divided into two groups, junior high school and senior high school.

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[29] The statistic R, is computed as follows: $R = X^2/df$. This measure permits cross-comparison among tables because it is a measure standardizing for the number of cells in a table. Also, R's can be rank ordered according to magnitude and be interpreted as an approximate measure of the strength of a relationship between two variables. The larger the value of R, the more strongly are two variables related.

Table 2.3 presents the relationship between sex of students and their age, and the total distribution of the sexes in the sample. As we would expect, there is no significant relationship between these two variables. The sexes are about equally represented in the sample; and, within any single age category, there are about equal proportions of boys and girls except among those students over 18. This fact will be important when the data for the investigated relationships are analyzed for it indicates that there is no sex bias introduced because of overrepresentation of one or the other sex categories in the total sample or within any single age category.

The relationship between students' ages and their course of study is presented in Table 2.4. It is apparent that from the ages of twelve to fourteen (those ages at which most students are in junior high school, see Table 2.2), there is no consistent relationship between age and course of study. The greater proportion of each age category is enrolled in a college preparatory course, and this proportion varies only slightly among the three age categories. However, among the fifteen to seventeen year old students (the ages during which most students are in senior high school, see Table 2.2), there is an increase in the proportion of students enrolled in the college preparatory course relative to junior high school students. In fact, a greater proportion of fifteen, sixteen and seventeen year old students are enrolled in a college preparatory course than are twelve, thirteen and fourteen year olds. Among the older students (fifteen to seventeen year olds). the highest proportion enrolled in a college preparatory course is among the fifteen year old students. This also is the age at which most students leave the junior high school and enter the senior high school. From this age on, the proportion of students in the college preparatory course decreases. This finding is further supported by Table 2.7 which shows the same relationship using the variable of grade rather than age.

This table of the relationship between age and course of study suggests that during the junior high school age, students may only be slightly interested in making definite plans for their future educational activities. However, when one leaves the junior high school and enters the senior grades (age fifteen), it is time to make definite plans for the future. For most, this means entering a college preparatory course. The fact that during the high school years, the proportion of students in the college preparatory course decreases indicates that something happens during these years to change the plans of a number of students. What happens to change the plans of students has already been hypothesized. That is, the possible development of negative evaluation of the schools, negative evaluation of society and negative evaluation of self may, as one grows older, be responsible for changes in educational desires and expectations. Thus, age will define subgroups of the sample among which the hypothesized relationships may vary.

The possible effect of sex role definitions upon student enrollment among the various courses of study is presented in Table 2.5. While a greater proportion of both boys and girls are enrolled in the college preparatory course than in any other, a greater proportion of boys are so enrolled than girls. Also, while only 6% of the boys in the sample are enrolled in a commercial course, which is designed to prepare students for clerical and secretarial jobs, 30% of the girls are enrolled.[30] Thus, sex does play a significant role in determining the type of course of study in which a student enrolls and will, therefore, be important in defining subgroups of the population among which the originally hypothesized relationships may be expected to vary. The fact that the sex of students and their grade in school are not significantly related (See Table 2.6) does not vitiate the need for controlling on either, for each is related to the course of study in which students are enrolled.

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[30] Within the textual material of this dissertation, percents will be rounded to the nearest whole percent by the conventional method of rounding. For exact percentage

In the present chapter we have presented the conceptual and operational model upon which the present investigation is based. Definitions of the concepts utilized, together with their operational indexes, were provided, as was an explanation of the methods employed. Finally, a description of the sample of students was presented. This description indicated the variables of age and grade to be highly related; and, that each, plus the variable of sex, is related to the course of study in which students are enrolled. This suggested the need for adequate controls of these variables to enable us to determine whether the hypothesized relationships vary for the defined subgroups.

With the above information, we now turn to an examination of the hypothesized relationships. A brief summary of the plan of analysis is presented below:

1. Analysis of the effect of social structural and interpersonal factors (independent variables) upon students' educational horizons (dependent variables). Chapter III.
2. Analysis of the effect of personal evaluations (intervening variables) upon students' educational horizons (dependent variables). Chapter IV.
3. Analysis of the effect of social structural and interpersonal factors (independent variables) upon students' educational horizons (dependent variables) as modified by the personal characteristics of students and contextual characteristics of the school (control variables) and as modified by personal evaluations (intervening variables) Chapter V.

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figures, the specific table referred to should be consulted.

4. Analysis of the independent ⟶ dependent variable relationships as modified by the simultaneous effect of personal evaluations (intervening variables) and personal and school characteristics (control variables). Chapter VI.

# III. EDUCATIONAL HORIZONS

## Their Distribution and Relationship to Social Structural and Interpersonal Conditions

### A. The Distribution of Educational Horizons Among Subgroups of the Sample

To what extent do the students comprising the sample value higher education? The answer is provided in Table 3.1 as expressed by their educational aspirations.[1] Of the 5,632 students answering the question concerning educational aspirations, 60% express a desire to graduate from college, while 23% and 16% of the students aspire to receive only a junior college or high school education, respectively.[2] Thus, well over half of the sample value a college education.

If we now consider the proportion of students who expect to obtain a college education, a slightly different picture emerges (See Table 3.2). Although 60% of the students express a desire for a college education, only 49% actually expect to attain a college degree. While this cannot be interpreted to mean that only 49% of the 60% who desire a college education expect to receive the same, it does indicate that expectations of a high degree of education lag behind aspirations. Students' expectations of obtaining a junior college education or a high school education or less are 26% and 26%, respectively.

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[1] The operational measure of educational aspirations appears in Appendix B, p. 198.

[2] The middle category of "junior college, business school or vocational training" in the educational aspiration and expectation distribution will be referred to only as "junior college" in the text and multivariate tables to avoid lengthy titles. It should be interpreted to mean a medium level of education between the two poles of "college or more" and "high school or less."

Table 3.3 provides the information necessary for us to draw conclusions about the relationship between students' aspirations and their expectations. There is an extremely high relationship between these two dimensions of educational horizons, as was predicted in the discussion of these concepts. Better than three-quarters of those students whose aspirations are for a college education expect to obtain one (78%). A similar relationship holds for those desiring a junior college type of education (77%). Among those students with a low level of educational aspiration, better than 90% expect to obtain that goal.

Although the two dimensions of educational horizons are conceptually distinct from one another, it is evident that empirically, they are highly similar. While this does not mean that we may state that, for example, a high level of educational aspiration leads to a high level of expectation or vice versa, we may treat the two as similar in our analysis. Therefore, in the analysis to follow, relationships which are stated as obtaining between educational aspirations and other factors may be assumed to obtain in a similar manner for educational expectations.

When this is not the case, the relationship will be indicated and discussed.[3]

In Chapter II, various subgroups of the population for which we might expect differing relationships among the major variables were identified. Tables 3.4 through 3.6 present the differing distributions of students' educational aspirations and expectations among these subgroups.

We find that 17% more of the males in the sample desire a college education than among females (69% and 52%, respectively). However, 14% more females desire a junior college type education than among males in the sample (30% and 16%). These differences suggest the operation of sex role definitions as an important factor in determining students' educational aspirations. Boys must prepare for occupations which require, more and more, higher levels of educational attainment before the positions can be secured and the associated roles performed. Higher levels of education may not be considered as necessary by girls because of the types of roles they expect to be performing. The fact that there is little difference between the proportion of boys and girls desiring a high school education or less indicates that some factors other than sex role must be utilized to explain this low level of aspiration among boys and girls. One possible explanation may be that students of both sexes have come to realize that the attainment of a high school education is the minimal requirement for the performance of almost any occupational role.

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[3] Appendix D is organized in such a manner that tables of variables related to educational expectation which are not discussed in the text may easily be consulted for comparison to corresponding tables using the variable of aspiration.

The relationship between the age of students and their educational aspirations is given in Table 3.5. There appears to be no significant relationship between these two variables. In fact, using grade in school as the measure of both age and length of time in the school system, there is very little difference between the proportion of junior and senior high school students desiring a college education --62% and 59%, respectively. (See Table 3.6). There is a slightly lower proportion of senior high school students desiring to obtain only a high school education than among junior high school students (13% and 21%, respectively).

As was previously found, older students tend to enroll in the college preparatory courses more than do younger students. This being the case, we might expect older students to also desire to obtain a college education more than younger students. The fact that there is little difference in the percentages of junior and senior high school students desiring a college education (Table 3.6) suggests that even younger students are aware of the necessity of obtaining a college education. That they have not enrolled in a college preparatory course simply indicates that they are not yet seriously pursuing their goal. This interpretation is strengthened if we recall that greater proportions of tenth grade students are enrolled in a college preparatory course than among ninth grade students. It would appear that the transition from junior high school (9th grade) to senior high school (10th grade) not only indicates a grade level change, but more importantly, indicates a change from simply desiring a college education to desire plus a decision to actively pursue it.

The relationship between students' course of study in school and their educational aspirations is shown in Table 3.7. Expectedly, among those students who are enrolled in a college preparatory track, an extremely high porportion (86%) desire to obtain a college education. Among students in other tracks, the proportion desiring college is much lower. The time ordering of variables here cannot be certain; but, it seems likely that those students who enroll in a college preparatory course are those students whose educational aspirations are high. Similarly, as Table 3.7a suggests, those students in the college preparatory track are also the ones who overwhelmingly expect to obtain a college education.

Because of the large percentage differences between those who are enrolled in a college preparatory course and those in other tracks with regard to their aspirations and, because of the similarity of aspirations and expectations among students in the noncollege preparatory tracks, we can divide our sample into two groups for purposes of future analysis--a college preparatory group and others.[4] Table 3.8 indicates the relationship between these two groups and their educational aspirations. This table makes clear the great divergence of students' educational aspirations depending upon whether they are enrolled in a college preparatory track or not. College preparatory students overwhelmingly aspire to and expect to obtain a college education.[5]

We have seen that the greatest proportion of students in the sample express a desire to obtain a college education but that the proportion expecting to achieve this is somewhat lower. While the data indicate no difference between junior and senior high school students with regard to this desire, greater proportions of boys and greater proportions of students enrolled in a college preparatory course desire to obtain a college education. Given these distributions of aspirations among the significant subgroups of the sample, we now turn to an examination of the conditions influencing students' educational horizons.

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[4] This procedure will also aid in solving the statistical and methodological problem involved in higher order multivariate tables which may result from small cell sizes.

[5] Because of the extremely high relationship between course of study and educational aspirations and expectations, we may view the "choice" of a college preparatory course as representative of an aspiration and expectation of attending college. While this "choice" may not be wholly one of the individual's own making, it does, in effect, limit his freedom to aspire to and expect a college education. Therefore, in the future analysis, course of study will not be treated as an independent variable for aspirations and expectations.

### B. The Effect of Social Structural Conditions Upon Students' Educational Horizons

Two particular social structural conditions were hypothesized as having an influence on students' educational horizons. The first of these, students' objective socioeconomic status, has been hypothesized as directly influencing students' educational horizons.[6]

Using a modified version of the Hollingshead two-factor index of socioeconomic status (See Appendix B, pp. 183-86 ), we find the relationship between socioeconomic status and educational aspirations to be strongly positive (Table 3.9). Among these students categorized as "Upper Class," 90% have high educational aspirations. The corresponding proportion for Class V students is 43%. Thus, better than twice the proportion of upper-class students desire a college education than among lower-class students. Also, there is a continual decrease in the proportion of students with high aspirations as one moves down the hierarchy of social classes. The effect of socioeconomic status is extremely pronounced when we consider students' educational plans (See Table 3.9a). While 83% of the upper-class students expect to obtain a college education or more, only 29% of the lower-class students have this expectation.

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[6] The major portion of this section dealing with socioeconomic status and educational horizons is adapted from: Donald Q. Brodie and Edward A. Suchman, "Socioeconomic Status and Students' Educational Desires," Paper presented at the American Sociological Association, 1967 Annual Meeting, San Francisco, California, August 28-31, 1967.

These findings are comparable to numerous other studies dealing with students' educational aspirations and plans. Krauss, for example, found that among the students in his sample, 64% of the middle-class students as compared to 41% of the working-class students planned to attend college.[7] In addition to differences due to the nature of the samples, and because he was dealing with definite college plans while the present research deals with aspirations and expectations for a college education, we would expect Krauss's figures to be lower than those we present.[8]

The observed relationship between socioeconomic status and students' educational aspirations has important implications for both educational policy planners and students of social stratification. While the policy implications of the present finding will be one of the major aspects of this study to be discussed in the final section on conclusions, the meaning of these findings, as they bear upon social stratification theory, will be discussed immediately.

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[7] Krauss, op. cit., p. 868. See, also, Sexton, op. cit. and Wallin and Waldo, op. cit.

[8] Krauss's sample only includes senior while the present sample includes junior and senior high school students, Ibid.

In terms of social stratification theory, the phenomenon of decreasing proportions of students desiring a college education as one descends the class hierarchy may represent yet another example of the unequal distribution of life chances among the various social classes. For just as the members of the different classes have different probabilities of attaining specific desired goals and of obtaining certain valued objects, as a function of their social class position, so, too, do they have different conceptions of what is desirable. If we accept the assumption that aspiration to attain a goal is important to its attempted attainment, then it becomes clear that not only is the probability of attaining a given goal one type of life chance, but the aspiration to attain the goal is another type of life chance.

Mack's recent remarks concerning class status are cogent:

> A person's class status, with its concomitant income, education, and style of life, greatly affects the likelihood that certain things will happen to him. Position in the class structure greatly influences many of life's chances: the chance to stay alive during the first year after birth, the opportunity to view fine art, the chance to remain healthy and grow tall and to recover from illness quickly, the chance to avoid becoming a juvenile delinquent, and--very crucially--the chance to complete intermediate or higher education.[9]

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[9] Raymond W. Mack, Transforming America: Patterns of Social Change (New York: Random House, Inc., 1967), pp. 66-67.

However, we would add more specifically, not only may position in the class structure affect "the chance to complete intermediate or higher education," which may carry the implicit assumption that economics is the determining factor; but, class position may affect the chance of aspiring to higher educational levels.

In addition to the above interpretation, the data presented in Table 3.9 also elaborate upon our earlier suggestion that not only may education in general be considered a common value, but that a high school education, in particular, is considered a commonly accepted minimum educational level to which almost all aspire. In light of the present data, we must now qualify that suggestion. For, although only 4% of Class I students desire this level of education, better than one-quarter (26%) of the Class V's so aspire. Thus, the particular level of education desired depends upon the social structural position of the student.

Poverty awareness is the second aspect of social structural conditions. It is a measure of the students' subjective social class identification.[10] While little previous research has investigated the relationship between subjective class identification and educational aspirations, the information provided in Table 3.10 suggests a relationship similar to that of objective socioeconomic status and aspirations.

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[10] See Appendix B, pp. 188-189 for the operational measure of Poverty Awareness.

Among students who identify themselves as being "well-off" 74% aspire to at least a college education. The comparable figure for students who believe that they are "not well-off" is 47%. Thus, students' subjective feelings concerning their social position in society do affect their aspirations. Similarly, these subjective feelings also affect their expectations as demonstrated in Table 3.10a.

### C. The Effect of Interpersonal Relations Upon Students' Educational Horizons

Parental pressures upon their children to attain high levels of education has been one of the most frequently mentioned influences upon students' educational plans. Kahl's original study of "common-man boys" illustrates the importance of this influence.[11] In the present study, also, student awareness of parental pressure is highly related to the students' educational aspirations (Table 3.11). In general, the educational level to which parents appear to pressure their children are the levels to which the students themselves aspire. This appears to be especially true for children who feel that their parents would like them to obtain a college education. Among such students, 88% also express this aspiration. Among students whose parents are described as expressing a medium or low level of education be attained, 80% aspire to this lower level.

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[11] Kahl, *op. cit.*

An interesting group of students are those who express not knowing the nature of their parents' educational desires for them. Among this group, 39% aspire to a high school education or less. This is the highest percentage of students yet encountered expressing this low level of aspiration.

There are several possible interpretations for this finding. First, consider the evidence that students tend to aspire to that level of education which is supported by parental pressure. It may be the case that those students who are classified as "don't know" with regard to parental pressure, but who aspire to a high school education or less, are the children of parents who do, indeed, pressure their children to attain only the most meager of educations. The children of these parents reply "don't know" because they are ashamed to admit that their parents don't have high educational aspirations for them.

Another possible interpretation is that the parents of these students are simply apathetic with regard to their children's education. This apathy may be experienced by their children in terms of no support, no encouragement for their educational accomplishments or aspirations. In light of the findings of previous research and the findings presented in the present investigation concerning the strong relationship between parental pressure and educational aspirations, we tend to prefer the former explanation. More research evidence concerning the aspirations of students unaware of their parents' educational desires for them is required before either one of the above explanations can be supported.

The relationship between parental pressures and educational expectations is similar to the above-discussed findings concerning educational aspirations (Table 3.11a). Of particular note is the 58% of the "don't know" who expect to obtain a high school education or less. This large proportion supports the previous explanation that these students are in fact children who feel that their parents have low educational aspirations for them.

The second measure of interpersonal relations employed is peer influences. As hypothesized, the relationship between peer educational plans, i.e., peer influences, and students' educational aspirations and expectations is strongly positive.[12] Among those students whose friends are planning to attend college or junior college, only 5% have low educational aspirations. The comparable figure for students whose friends are planning other activities is 28% (Table 3.12). Even larger differences appear if we consider students' educational plans (See Table 3.12a). Among those students whose friends expect to obtain a college or junior college education, 10% expect to obtain a lesser amount of education. However, among students whose friends expect other than a college or junior college education, 42% expect to obtain a high school education or less.

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[12] The categories of the question used as a measure of peer influences are somewhat different than those measuring educational horizons (See Appendix B, pp. 191 and 198. To avoid possible error in interpretation and necessarily verbose explanations of differing categories, all interpretations dealing with peer influences as the independent variable will focus upon proportions of students aspiring to and expecting a high school education or less. While this procedure does diverge from the major analysis focus --aspirations for a college education or more--it avoids the problems of comparing differently worded categories.

Thus, the effect of peer plans upon students' educational horizons is strong. The specific mechanisms by which peer plans influence students' educational horizons are probably of two types, previously suggested. First, students select as their peers other students with similar values and expectations; and, to gain entry into certain peer groups, students adopt the values of the group. These two factors help explain the stronger relationship between peer plans and students' aspirations than between peer plans and expectations. For while students can, with relative ease, adapt their values to conform to the values of the group, it is more difficult to modify one's expectations. Expectations are a product of real, existing limitations such as grades or financial ability.

The relative strength of the relationship between the independent variables and educational aspirations and expectations are indicated in the summary table below.

By comparing the values of R between the two dependent variables, we can see that the strongest relationships occur between the independent variables and the dependent variable of educational expectations. However, the R values do order the independent variables in the same

### SUMMARY TABLE OF STRENGTH OF RELATIONSHIP BETWEEN EACH INDEPENDENT VARIABLE AND DEPENDENT VARIABLE

| Values of R | Educational Aspirations | Educational Expectations |
|---|---|---|
| Parental Desires | 629 | 673 |
| Peer Plans | 441 | 545 |
| Socioeconomic status | 66 | 93 |
| Poverty Awareness | 37 | 64 |

sequence regardless of whether we are talking about educational aspirations or expectations. Thus, for example, the variable of parental desires is the most strongly related variable to both educational aspirations and expectations. Thus, for example, the variable of parental desires is the most strongly related variable to both educational aspirations and expectations. The fact that the value of R does similarly rank order the independent variables lends support to our earlier decision to discuss only one of the dependent variables, educational aspirations.

In order of descending strength of relationship to educational horizons, then, we may rank the independent variables as follows:

1. Parental Desires
2. Socioeconomic Status
3. Poverty Awareness

The variable of peer plans, while not able to be ordered because of differences in wording, is also significantly related to educational horizons.

In the present chapter, the distribution of various degrees of educational aspirations and expectations among the students in the sample was investigated. We found that while better than 60% of the sample desire a college education or more, slightly under half of the sample expect to obtain this level of education. Thus, it would appear that a college education is a generally accepted value among the students. Also, it was found that when students desire low levels of education, their expectations of obtaining these are considerably higher than if they desire a college education. This is not surprising if we consider that the expenditures, including money, time and effort, required to obtain a college education are greater than if one desires a lower level of education; and, that many students do not wish to or cannot make these expenditures.

We next examined some of the characteristics of students which might influence them to desire a college education. While age and grade did not appear to influence desire for a college education, sex did. This was explained by sex-role differences. Boys tend to desire a high level of education more than girls because of the roles, especially occupational roles, which they expect to perform in their lifetime.

We then examined the four major variables measuring social structural and interpersonal relations which were hypothesized would influence students' educational desires and expectations. The four hypotheses were accepted. Thus, although the majority of students desire and expect to obtain a college education, this varies significantly depending upon the students' social class position, poverty awareness (subjective class identification), their parents' pressures upon them and the influence of their peers.

Given the distribution of aspirations and expectations within the sample and the influence of social structural and interpersonal conditions upon these, the next major question we must ask is if these influences have varying effects as a function of the hypothesized attitudinal factors. Before this question can be answered, however, we must first determine if indeed the attitudinal factors are related to the students' educational aspirations and expectations.

# IV. PERSONAL EVALUATIONS AND STUDENTS' EDUCATIONAL HORIZONS

The present chapter focuses upon the three levels of students' evaluations hypothesized as important modifiers of the social structural conditions and interpersonal relations which have been shown to be influences upon students' educational horizons. The three levels of personal evaluation examined are: societal evaluation, school organization evaluation and self-evaluation.

## A. Societal Evaluation

Students' educational horizons are hypothesized as varying depending upon their evaluation of society.[1] It is suggested that students with negative attitudes toward society are less likely to desire and to plan to obtain a college education than students with positive attitudes toward society.

Students' evaluation of society, as measured in the present study, consists of attitudes toward the stability of society itself, and toward relationships with other people. It is possible that students who believe society is rapidly changing, that their personal relationships with others are weak and meaningless, and that one should "live for the moment" do not feel as though they belong to society.[2] We may label these individuals as "anomic" implying that for them, there are no standards of guidance. Or, we may call them "alienated" meaning that they are estranged from commonly accepted societal goals and values. Regardless of the label attached, however, we would expect these students to have lower educational horizons. For them, the desire for a high level of education may be meaningless for several reasons. First, they may not believe this goal to be one that will in any way aid them in society. If one believes that society is rapidly changing and that one should "live for today," the time and effort required to attain a distant goal may not appear worthwhile. Secondly, students with negative attitudes toward society may simply reject a college education as a desirable goal because it is one valued by society in general. That is, they reject the goal because they "reject" society.

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[1] See Appendix B, pp. 192-193, for the items used to operationally measure students' evaluation of society.

Table 4.1 presents evidence which supports the above interpretations. Among those students with positive attitudes toward society, 72% desire to obtain a college education or more. Among students with negative and neutral attitudes toward society, 48% and 60%, respectively desire a college education. The more positive students' attitudes toward society, the more likely they are to desire a college education.

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[2] Kenneth Keniston, op. cit., and Elmer Struening and Arthur H. Richardson, "A Factor Analytic Exploration of the Alienation, Anomia and Authoritarianism Domain," Paper presented at the American Sociological Association Annual Meeting, August 31, 1964, Montreal, Canada.

## B. School Organization Evaluation

Two measures of evaluation of the school organization were developed for the present study. The first of these, and the more general of the two, is "School Evaluation." It refers to the students' evaluation of the educational aspects of the school, and the manner in which the school performs its function. Specifically, it measures students' evaluations of school as a worthwhile and interesting experience.[3] As was suggested earlier, a students' evaluation of school is undoubtedly influenced by a multiplicity of factors. Probably most important of these are in-school contacts with teachers, principals and other school personnel who are official agents of the school.[4]

The second measure of students' evaluation of the school organization is "School Identification."[5] The measure refers to the students' feelings of personal identification with his school as an important social group to him. Thus, rather than an evaluation of educational qualities, this measure stresses social qualities. Table 4.10 in Appendix E shows the high degree of interrelationship between these two types of evaluation.[6] Because of the extremely high relationship between these two variables, we may treat either one of them as indicative of students' evaluation of the school organization. Selecting "School Evaluation," as measured by students' attitudes toward school, as this measure, we find in Table 4.2 the relationship between this attitude and their educational aspirations. About 17% more students with a positive school evaluation aspire to a college education than students with a negative evaluation (70% and 53%, respectively). This finding suggests that in addition to the social structural and interpersonal conditions which influence students' educational horizons, the school, itself, is a significant influence. If students develop positive attitudes toward the school, they may be likely to desire to prolong this type of experience. Or, if the school experience is enjoyable and positively valued, the goal upon which the school's activities are based--education--may become valued. In either case, the results are similar. Students will desire

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[3] See Appendix B, pp. 194-195, for the operational measure of School Evaluation.

[4] See, for example: J. Henry, "Docility, or Giving the Teacher What She Wants," Journal of Educational Research, Vol. 29 (1935), pp. 196-203; Lloyd W. Warner, R. Havighurst and M. Loeb, Who Shall Be Educated? (New York: Harper, 1944); August B. Hollingshead, op. cit.; Howard S. Becker, "Social Class Variations in Teacher-Pupil Relationship," Journal of Educational Sociology, Vol. 25 (1952), pp. 451-465; P. Laubert, "Some Implications of Teacher Stereotyping," Journal of Educational Research, Vol. 56 (1963), pp. 551-553.

[5] See Appendix C, pp. 201-202, for the operational

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measure of School Identification.

[6] Appendix E contains the interrelationships among those indicators developed to measure a single concept.

more education and, for many of them, this means a college education.

Accordingly, for those students who develop negative attitudes toward the school, the process proceeds in the opposite direction. If school experiences are not enjoyed, they are not likely to be desired in the future. Also, if school experiences are not enjoyed, it is not likely that the goal of the schools--education--will be desired. In either case, students will desire to terminate the educational process as soon as possible.

### C. Self-Evaluation

The final level of personal evaluation hypothesized as intervening or modifying the relationship between social structural conditions, interpersonal relations, and students' educational horizons is self-evaluation. Three measures of this level of evaluation were developed: (1) self-image, (2) self-esteem, and (3) mirror-image.[7] Tables 4.11 to 4.13 in Appendix E present the interrelationships among these three measures.

It is evident that the interrelationships among these three measures are extremely high. No assertion is made concerning developmental sequence and, in all likelihood, the three evaluations are, in addition to being empirically interdependent, also developmentally interdependent, each interacting upon the other.

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[7] See Appendix B, pp. 196-197, for the items used to measure self-image. See Appendix C, pp. 203-207, for the items used to measure self-esteem and mirror-image.

Because of the high interrelationships among these scales, we may treat one as our measure of students' self-evaluation. For purposes of this presentation and discussion, we have chosen self-image.[8] The relationship between this measure and students' educational aspirations is quite high (Table 4.3). A 20% difference exists among the proportions of students aspiring to a high level of education as a function of their self-evaluations (70% and 50%). That is, the more positive are students' self-evaluations, the more likely are they to have high educational aspirations.

The mechanisms by which a student's evaluation of self may affect the value he attaches to different levels of education are not difficult to imagine. Self-image, as a measure of personal worth, involves feelings of ability or inability, personal efficacy, social acceptability, etc. To the degree that these qualities are relevant to the aspirations for any given goal, then the more negative one's self-image, the less likely will one believe he is capable of attaining it. We would expect a student's self-image to affect his educational desires and plans. Students often define the educational process as competitive.

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[8] The differences found for the relationship of self-image to the variables here discussed also hold for each of the other two measures of self-evaluation.

Students feel they are competing for grades. If one defines himself as lacking in qualities that others possess, or not as capable as others, he is less likely to desire to enter a competitive situation--the obtaining of a college education.

A summary of the three major relationships examined in this chapter is provided below.

SUMMARY TABLE OF RELATIONSHIP BETWEEN
PERSONAL EVALUATIONS AND EDUCATIONAL HORIZONS

| R Values | Educational Aspirations | Educational Expectations |
|---|---|---|
| Societal Evaluation | 66 | 63 |
| Self-Evaluation | 65 | 71 |
| School Evaluation | 42 | 33 |

With regard to educational aspirations, societal and self-evaluation are about equally strong. These are followed by students' evaluation of school. This same ranking obtains when we consider educational expectations. Thus, the three major hypotheses concerning the relationship between personal evaluations and educational horizons (See Chapter II, p. 64), are confirmed.

We have now seen that social structural and interpersonal factors do influence students' educational aspirations and expectations. We have also presented evidence that students' personal evaluations, i.e., attitudes toward society, school and self, influence their aspirations and expectations. We must now determine whether personal evaluations modify the effect of social structural conditions and interpersonal relations and, if so, to what extent. The answer to this question will be useful to policy planners and others concerned with overcoming the negative effect of pupils' backgrounds upon their educational horizons. Also, the answer should be of interest to sociologists and social psychologists concerned with the effect of attitudinal type variables upon the influence of the structural type of variables.

# V. INTERVENING INFLUENCES UPON SOCIAL STRUCTURAL AND INTERPERSONAL FACTORS AFFECTING STUDENTS' EDUCATIONAL HORIZONS

The effect of social structural conditions and interpersonal relations upon students' educational horizons may be expected to vary as a function of a number of other forces which influence the students. The present chapter examines two conditions conceptualized as important modifiers: demographic and contextual characteristics which distinguish the students and the students' personal evaluations.

## A. The Effect of Demographic and Contextual Characteristics

The demographic characteristics of sex and grade were identified previously as defining important subgroups of the sample.[1] Similarly, grade and course of study define other important subgroups. We may now present the question of the actual degree to which the effect of social structural conditions and interpersonal relations varies among these two subgroups.

Earlier in this thesis, parental pressure was shown to be the most strongly related independent variable, in the present model, to students' educational horizons. The fact that this pressure is effective regardless of whether we are speaking about boys or girls, or junior or senior high school students, is shown in Table 5.1. Regardless in which of these subgroups the student is categorized, parental pressure retains its strong influence. If parents encourage their children to go to college, it does not make much difference whether the students are boys or girls or whether they are in junior high school or senior high school. They are likely to have college aspirations. Thus, parental pressure outweighs sex role differences. The process whereby this results is easily understood if we remember that as the primary agents of socialization, parents define for children "appropriate" sex roles. It may be, therefore, that parents who want their daughters to go to college instill in them sex role definitions which are different from those of parents who do not want their daughters to go to college.

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[1] Grade is used here to refer to age as well as length of time in the school system.

Considering the effect of parental pressure upon educational horizons among junior and senior high school students enrolled in college preparatory versus other curriculums, we notice a somewhat different pattern of relationship (Table 5.2).[2] Considering junior high school students whose parents desire that they obtain a college education, 96% of those enrolled in the college preparatory course have aspirations for college. Among senior high school students, 95% in the college preparatory course aspire to college. Thus, we may conclude that among junior and senior high school students enrolled in a college preparatory course, parental desires for their children to obtain a college education tend to result in the children having aspirations for college. However, when we consider the proportion of senior high school students in other than the college preparatory course who have aspirations for college, we observe a decrease in the effectiveness of parental pressure. Whereas 76% of the junior high school students enrolled in other than a college preparatory course have aspirations for college, 52% of senior high school students in similar courses so aspire. It is possible that a lower proportion of students in senior high school have high educational aspirations than among similar junior high school students despite the fact that all the parents desire a college education for their children. Several plausible

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[2] In the schools which comprise the sample on which the present study is based, a number of factors operate to determine whether a student will be enrolled in a college preparatory or other type of curriculum. In some of the schools, a student could, with ease, select for himself a college preparatory course of study. In other schools this selection was not so simple. It could require the consent of the parents, a specified grade average, an interview with the school counselor or specific course

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prerequisites. In the latter case, high school students who might desire to take the college preparatory course were blocked from doing so because they did not have the necessary course requirements. Thus, unless the student had been identified in earlier grades as "possible college material," and had been directed to elect the appropriate courses, he could not choose the college preparatory course in high school. Finally, in some of the schools, the decision as to whether a student would go into the college preparatory course or some other was, in effect, a decision made by the school counselor and other school personnel--a highly subjective procedure.

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reasons are: (1) senior high school students are older and probably feel more independence from parents, (2) senior high school students have been in the school system longer and have had more opportunity for negative feelings to have developed, and (3) senior high school students who are not in a college preparatory course may more fully realize that they simply are not equipped to go to college. This final point is more dramatically presented in Table 5.2a. While 60% of the junior high school students in other than a college preparatory course expect to obtain a college degree, only 33% of similar senior high school students so expect.

In light of the fact that neither grade in school or sex appears to influence the effect of parental pressure upon students' desire for a college education (See Table 5.1), the third explanation above seems the most probable. That is, among students whose parents desire that they obtain a college education, those students not enrolled in a college preparatory course of study realize they are not prepared to pursue this goal. To some extent, this realization occurs during the junior high school years but, it occurs most markedly during the senior high school years.

In general, then, we may conclude that parental pressure retains its influence regardless of the sex or age or grade level of students. Parental pressure is also effective among those students enrolled in a college preparatory course of study. However, among students enrolled in other than a college preparatory track, parental pressure is less effective, especially among senior high school students.

The effect of students' socioeconomic status upon their educational aspirations previously was found to be strong. We may now determine the degree to which the effect of this variable is modified by the personal and contextual characteristics identified.

Table 5.3 demonstrates that males, regardless of whether they are in junior high school or senior high school, have higher educational aspirations than females of the same class. Thus, for example, 5% more male junior high school students in Class I have college aspirations than females in the same socioeconomic status and grade level (92% and 87%, respectively). Comparable differences for Class III and V students are 12% and 12%, respectively. If we compare the percentage of boys and girls in senior high school with college aspirations, we find 14% more senior high school boys in Class I have college aspirations than senior high school girls in the same class. Comparable differences for Class III and V students are 20% and 21%, respectively. These higher proportions again evidence the difference in educational aspirations as a function of the difference between male and female sex roles. The fact that larger differences occur among senior high school boys and girls than among junior high school students suggests that older students are more aware of "appropriate" sex roles.

Also, it is evident from Table 5.3, excluding the highest socioeconomic status, greater proportions of junior high school students have higher educational aspirations than senior high school students.[3] This suggests the possibility that the longer children are in the school system the less likely they are to have high educational aspirations. This appears to be especially true the lower one's socioeconomic status and if one is female. Thus, for example, whereas 40% of the Class V female junior high school students have college aspirations, 30% of the Class V senior high school females have high educational aspirations.

There are a number of factors which can cause this decrease. First, as has already been suggested, as students mature they become more aware of their "appropriate" sex roles. Accordingly, we notice greater differences in the percentage of students expressing a desire for a college education among boys and girls in senior high than in junior high school. That this difference becomes greater the lower the socioeconomic status considered suggests further that sex role definitions of lower-class girls are different than the definitions of upper-class girls. For example, among upper-class girls, education may not be one of the dimensions along which the sexes are differentiated while, for the lower-class girls, this dimension is still important.

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[3] Class I students present an interesting exception in that a reversal takes place. That is, among males, a lower proportion of junior high school students have college aspirations than do senior high school students. Among females, on the other hand, a slightly greater proportion of junior high school students have college aspirations than senior high school students. This apparent reversal can probably be explained by considering two factors. First, for females the difference between the proportions of junior and senior high school students with college aspirations is small (4%). The percentage for female junior high school students (87%) may be inflated because of the small number of cases (N = 90). Secondly, when considering male senior high school students, we might expect the proportion with college aspirations to be higher than among junior high school students because students who have very low aspirations may drop out of school.

In addition to sex role differences, it is possible that the longer one is in the school system, the greater the number of negative experiences one encounters. As a consequence of these negative experiences, students' desires for a college education decrease. Having had "bad" experiences in the high school, they do not wish to expose themselves to similar situations, i.e., in the college educational system. The fact that the lower classes have the lowest percentage of students expressing a desire for a college education may indicate that it is these students who may have experienced the greatest number of unpleasant experiences.

The findings from Table 5.3 can be most easily summarized by looking at the extreme cells. While 97% of the Class I senior high school males have college aspirations, only 30% of the Class V female senior high school students have similar desires. So, while the effect of socioeconomic status upon students' educational horizons holds for these subgroups, it is most pronounced for females and for senior high school students.

In examining the differences between socioeconomic status and students' educational aspirations among the subgroups of junior-senior high school and college preparatory versus other types of courses, some extreme differences are apparent. (See Table 5.4). First, the relationship between socioeconomic status and the educational aspirations of junior high school students enrolled in a college preparatory course is relatively weak. While 95% of the upper-class students in this subgroup express a desire for college, 76% of the lower-class students express a similar desire. We are led to conclude that their course of study is playing a more important role vis-a-vis their aspirations than their social status. This is not the case when we consider junior high school students in other than a college preparatory course. While 82% of the Class I students in this subgroup have college aspirations, only 34% of the Class V students do.

So long as students are enrolled in a college preparatory track or are in the upper socioeconomic status, they express a desire for a college education. However, among students who are not enrolled, in the college preparatory track, the lower the status, the lower the proportion desiring college. In other words, students' socioeconomic status is especially relevant in determining desire for a college education among those not enrolled in a college preparatory course.

Considering high school students, those relationships described for junior high school students hold with one major exception. Whereas 82% of the upper-class junior high school students enrolled in a noncollege preparatory course express a desire for a college education, only 32% of the upper-class senior high school students in a similar course of study express this desire. Again, we must conclude that the course of study in which students are enrolled is affecting their educational desire more than their social status. This influence is particularly noticeable for senior high school students. Undoubtedly, at this stage in their educational career, they realize that in not preparing for a college education it is unrealistic for them to desire the same. This interpretation is strengthened if we consider Table 5.4a. While 65% of upper-class junior high school students not enrolled in a college preparatory course expect to attend college, 28% of similar students in high school expect to do this.

The degree to which students' subjective identification with a particular social status influences their educational horizons was investigated in Chapter IV. We now need to determine whether this relationship varies among the subgroups of the sample. Table 5.5 indicates that the lowest percentage of students with aspirations for college (35%) are female senior high school students who identify themselves as "not well-off." Males, regardless of their grade level in school, appear less affected by subjective feelings of being "not well-off" than females.

The fact that lower percentages of females who identify themselves as being "not well-off" aspire to college than males with the same identification suggests that feelings of status anxiety, i.e., feelings that one is not as well-off as others, has a greater effect upon females than males. Further, this effect is intensified among females as they move from junior to senior high school. Considering male students, this relationship is reversed. That is, while 52% of the junior high school males who identify themselves as being "not well-off" aspire to college, 57% of similar senior high school males so aspire.

What factors are operating which influence males who are "not well-off" to aspire to college, and for that percentage so aspiring to be greater among senior high school students than among junior high school students, while the opposite process is at work among female students? Undoubtedly, a complex interaction of several social processes is at work. Sex role differences appear to again be a major influence. However, in addition to this influence, we suggest the possible operation of two other factors: functions of further education and status concerns.

By "functions of further education" we mean the gains students anticipate from acquiring a college education. These anticipated gains are probably different for boys than for girls. That is, the major type of gain boys may anticipate from acquiring a college degree are vocational. By going to college, boys expect to be able to select certain occupations. The college education is seen as providing them with the necessary skills to perform the occupational role.[4]

For girls, on the other hand, the acquiring of a college education may have more social significance than occupational significance. Girls, in addition to having internalized sex roles which may not require the acquisition of skills one obtains in college to perform future roles, may anticipate social gains--such as social prestige, a pool of eligible mates, etc.--from going to college.

If the above two assumptions are correct, then the differential effects of feelings of "not being well-off" upon the aspirations of boys and girls becomes clear. For boys, status anxiety may not be a relevant concern vis-a-vis going to college for college is defined as an occupational training ground. For girls, who define going to college in terms of social objectives, status anxiety becomes significant. To the degree that girls feel they are not as well-off as others, they may feel they will be unable to effectively perform in the college setting. That the percentage of senior high school girls who are not well-off that desire a college education is lower than among similar junior high school girls indicates that age is an important factor in the "realization" that one's social status may affect chances in college. Thus, as girls become older they are more aware of their social position relative to others. For those who feel they are not as well-off as most, this means lower aspirations.

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[4] The term "union card" used as a synonym for a college degree but all too clearly symbolizes the vocational orientation among many students.

The relationship between students' poverty awareness and their educational horizons among the four subgroups defined by grade in school and course of study is presented in Table 5.6. It is evident that among students enrolled in a college preparatory course, there is a moderate difference between the percentages reporting desire for a college education. Thus, while 91% of the junior high school students enrolled in a college preparatory track who identify themselves as "well-off" have desires for a college education, 81% of similar students who are "not well-off" express this same desire. Comparable figures for senior high school college preparatory students are 93% and 80%, respectively.

Students' subjective class identification appears to have a greater effect upon students enrolled in noncollege preparatory tracks. (Table 5.6) While 51% of those junior high school students who identify themselves as "well-off" desire a college education, 34% of similar students who are "not well-off" so desire. Comparable figures for senior high school noncollege preparatory students are 32% and 16%, respectively. We may conclude that among students enrolled in a college preparatory course, there is a moderate relationship between their subjective class identification and aspirations for college. This relationship is, however, stronger among students in a noncollege preparatory track.

Table 5.6a shows the effect of students' subjective class identification upon expectations of obtaining a college education. Among junior high school students enrolled in a college preparatory course, 86% of those who report being "well-off" expect to obtain a college education. Among similar students who report being "not well-off," 71% expect this amount of education. This difference of 15% contrasts with a difference of 27% between senior high school college preparatory students who report being "well-off" or "not well-off" (85% and 58%, respectively). We can conclude from this that subjective class identification has a more significant influence upon senior high school students than students in junior high school. It is likely that by the time students reach high school, they are more aware of the constraints upon them vis-a-vis expecting to obtain a college education. An examination of students in noncollege preparatory tracks points up the fact that subjective class identification is a significant influence upon their educational expectations regardless of grade level in school.

Whether or not students' peers planned to attend college previously was shown to be an influence upon students' educational horizons. It was suggested that this influence could operate in one of two ways. First, students are likely to form affiliations with others who possess values and attitudes similar to their own. Or, students may modify their own values and attitudes to bring them into conformity with those of the group to which they wish to belong.

Table 5.7 shows the degree to which the relationship between peer influence and students' aspirations for college varies among males and females in junior and senior high school. Among males, about equal percentages of junior and senior high school students whose friends plan to go to college or junior college express desires for a college education (86% and 87%, respectively). A similar pattern exists for female students. Among junior high school girls, 74% of those whose friends plan to go to college or junior college express a desire for a like education. The comparable figure for senior high school girls is 71%. Thus, regardless of sex or grade level, if students' peers plan to attend college or junior college, it is likely that they will have aspirations for college. Peer plans then are important influences upon students' aspirations for college regardless of sex or grade level.

If we consider those students whose peers have educational plans other than attending college or junior college, we find that the difference in percentages of students reporting aspirations for college as a function of their grade level is pronounced, regardless of sex. While 59% of the male junior high school students whose peers have plans other than attending college or junior college aspire to college, 44% of similar senior high school students so aspire. Comparable figures for female students are 41% and 23%, respectively. We are once again led to conclude that there are social factors operating which negatively influence students' aspirations for a college education as they move from junior to senior high school. In the present instance, these negative influences tend to be operative on only those students whose peers do not plan to attend college. A probable explanation for these lower percentages of senior high students aspiring to a college education than junior high school students hinges upon the importance of the peer group to students. Among younger students, the peer group is a source of emotional support and provides them with a pool of close friends. At this early stage considerations of future educational plans may not be of particular importance to the formation of peer group affiliations. Students may feel that even though one's friends do not aspire to college, this need not affect their own aspirations. At the high school level, educational aspirations do become relevant for peer group affiliations. Decisions concerning one's future must be made, and values and attitudes which affect these decisions become topics of discussion. Students who may desire a college education but whose peers do not may be forced to either modify their aspirations or break existing peer group relations. In other words, educational aspirations has become a relevant factor in forming or maintaining relations with peers in the upper grade levels.

Further limits of peer influence upon students' aspirations for college are indicated in Table 5.8. Among both junior and senior high school students enrolled in a college preparatory track, if students' peers plan to attend college or junior college, then it is likely that the students, themselves, will have aspirations for a college education (92% and 91%, respectively). However, among students enrolled in other than a college preparatory track whose peers are college bound, a much lower percentage of senior high school students have aspirations for college than among junior high school students (63% and 35%, respectively). It appears that among junior high school students not enrolled in a college preparatory course, peer plans for college is enough influence to make students desire a college education. However, among similar senior high school students, peer plans are not as great an influencing factor. At this stage, students may realize that not having enrolled in a college preparatory course, they are not equipped to pursue an academic course of study.

The preceding analysis has elaborated upon the effect of each of the independent variables--parental pressure, socioeconomic status, subjective class identification and peer influences--upon students' educational horizons among subgroups of the sample. These subgroups are defined by personal (age and sex) and contextual (grade level and course of study) characteristics of the students. The major modifications of the original relationships and a brief interpretation of the reasons for these modifications are presented here in summary fashion.

Parental pressure upon students to obtain a college education is a strong influence regardless of sex or grade level of the students. The only group of students among whom parental pressure is a relatively weak influence on aspirations are those enrolled in noncollege preparatory courses. And, among these, senior high school students are less affected than those in junior high school. Of the possible explanations of this decreased influence, the most plausible seems to be that regardless of parental pressure, students enrolled in noncollege preparatory courses realize they are not prepared to pursue a college education. This realization occurs to more and more students as they progress in the school system and become familiar with the requirements of going to college.

The original relationship between socioeconomic status and students' educational aspirations was found to hold for all subgroups of the sample. That is, regardless of sex or grade in school, the higher the socioeconomic status, the more likely students are to desire a college education. The fact that in each social class greater percentages of males aspire to college than females was explained through differing sex role definitions. Also, that there are greater differences in the percentages of male and female students expressing a desire for a college education among senior high school students than among junior high school students suggested that as students become older they are more aware of appropriate sex role definitions.

Of particular importance in our examination of the relationship between socioeconomic status and aspirations is the fact that regardless of sex, and with only one exception, greater proportions of junior high school students in each social class express desire for a college education than among senior high school students. This suggests that some social process is at work which decreases the aspirations of students as they progress in the school system. The empirical evidence bearing upon this explanation appears in the following section of this chapter.

Among junior high school students enrolled in a college preparatory course, it was found that socioeconomic status only slightly influenced aspirations for college. However, among junior high school students enrolled in a noncollege preparatory course, there was a strong relationship between socioeconomic status and educational aspirations. Based on this evidence, we conclude that the fact of being enrolled in a college preparatory course can overcome the negative influences of low social class position upon aspirations. This same pattern of relationships does not hold among senior high school students. That is, few of those upper-class students enrolled in a noncollege preparatory course aspire to college.

The major modifications in the previously established relationship between subjective class identification and aspirations were twofold. First, it was found that the aspirations for college of females were more affected than were males. Further, senior high school girls appeared to be more affected than junior high school girls. The ideas of status anxiety and anticipated gains from obtaining an education were introduced to explain these differences.

Neither sex nor grade level significantly modified the relationship between peer influences and students' aspirations for college. However, among students whose peers have plans other than attending college or junior college we found that regardless of sex, a lower percentage of senior high school students express a desire for a college education than among junior high school students.

In this section we have shown whether, and if so to what degree, the original relationships between the independent and dependent variables varies among the subgroups of the sample. The most startling finding is that for both males and females, and for students enrolled in college and noncollege tracks, there is a general tendency for aspirations for a college education to decrease as they advance in grade level. Thus, not only do the schools fail to motivate many students to aspire to high levels of education, they actually negatively influence students with high aspirations. Of course, the school alone cannot be held responsible. Other factors in the lives of students may also be negatively influencing them. Exactly what these factors may be is a matter for empirical investigation.

In the next section of this chapter, we examine three possible conditions which have been hypothesized as influencing the relationship between social structural conditions, interpersonal relations and students' educational horizons.

## B. The Effects of Students' Personal Evaluations Upon The Relationships Between Social Structural Conditions, Interpersonal Relations and Educational Horizons

Our data have shown parental pressure for college to be strongly positively related to students' aspirations and expectations of obtaining a college education. This relationship has been shown to hold regardless of the sex, grade level or course of study in which students are enrolled. We have also shown that certain personal evaluations of students affect their aspirations and expectations. The next logical question we must ask is if the personal evaluations of students affect the influence of parental pressures upon educational horizons. Tables 5.9 and 5.9a provide this evidence.

The effect of parental pressure to obtain a college education upon aspirations for college among students with differing evaluations of society is presented in Table 5.9. The more negative the students' evaluation of society, the less the effectiveness of parental pressure to influence the students' aspirations for college. Among students with a positive evaluation of society, 93% of those whose parents expressed a desire for them to obtain a college education voiced a similar aspiration. The comparable figure for students with a negative societal evaluation is 81%. Negative evaluations of society do tend to weaken the effectiveness of parental pressure. Students who see society as unstable, who feel personal relationships are tenuous and who feel one should "live for the moment" may simply disregard parental desires. In extreme cases, students who have negative evaluations of society and societally valued goals, including education, may simply discount parental advice because it comes from "members of the establishment." That is, it is discounted because it is, in fact, parental. Whatever the specific mechanism, it is evident that students' evaluations about society do affect the influence their parents have in shaping their values. It would be interesting to know at what point in their educational careers students' evaluations about society begin to affect their aspirations. This will be discussed in Chapter VI.

Students' evaluations of the school itself tend to modify the influence of parental pressures upon students' educational desires to a much lesser extent than their societal evaluations. Table 5.10 shows that among students with a positive evaluation of the school, 82% who report that their parents desire them to go to college also aspire to this level of education. The percentages for students with medium and negative school evaluations are 79% and 77%, respectively. Therefore, it makes little difference among students whose parents exert pressure on them to attend college whether they evaluate school positively or negatively--they will still aspire to a college education. Parental pressure for college upon students appears to overcome the students' negative attitudes toward school. An entirely different picture emerges when we consider those students whose parents express desires for medium or low levels of educational attainment for their children (junior college or less). Among students who positively evaluate the school and whose parents express medium or low desires for their children, 55% voice a desire for a college education or more. The comparable figure for those with negative evaluations of the school is 33% aspiring to college. We may conclude, then, that for students whose parents express desires of medium or low levels of education, their evaluation of the school organization is an extremely important factor in determining aspirations for college. For these students, positively evaluated school experiences become indications that education may be a desirable goal of which parents are not aware.

This finding is of pronounced significance for policy planners for it points to an area in which the school, itself, can do much to increase students' aspirations for higher education. This will be discussed in the final chapter of this thesis.

The effect of students' self-evaluations upon the relationship between parental pressure and students' aspirations is moderate. Among those students who see themselves as possessing positive characteristics, 93% whose parents desire that they go to college also express this aspiration. Eighty-three percent of similar students, but with a negative self-evaluation, aspire to this level of education. Regardless of parental pressure, we may conclude that if a student does not evaluate himself positively, he is less likely to have high educational aspirations. He may simply believe he is not capable of accomplishing the goal and, therefore, he does not desire it.

We conclude that personal evaluations as situational definitions held by students do modify the effect of parental pressure upon aspirations for college. In a more general framework, we suggest that personal situational definitions affect the definitions and expectations imposed by significant others, in this case, parents.

Students' socioeconomic status was shown earlier to be related to their educational aspirations. We found that the higher the socioeconomic status of students, the more likely they are to aspire to a college education. Further, we found this relationship to hold regardless of students' sex, grade level or course of study. We now wish to determine the extent to which the hypothesized intervening variables of personal evaluations modify the original relationship. This analysis will permit us to identify conditions under which socioeconomic status of students is a more or less significant influence on students' educational horizons.

Table 5.10 indicates that regardless of their evaluation of society, the higher the social class position the more likely are students to have aspirations for college. However, it is also true that the more negative the students' evaluations of society, the lower the percentage of them expressing desire for a college education in each social class. Among students with a positive evaluation of society, 93% of those in the upper-class have high educational aspirations. Among lower-class students, 54% aspire to college. Comparable figures for upper and lower-class students with medium and negative evaluations are 87% versus 44%, and 83% versus 35%, respectively. It appears that students' social class position retains its strong influence regardless of how they evaluate society. Students in the various classes have internalized values similar to those of their parents, and lower-class parents may not stress college education as an important value to the degree that upper-class parents do.

Students develop evaluations of society as a function of experience with others, including their parents. For upper-class students who develop positive societal evaluations, these appraisals serve to reinforce those values, beliefs and attitudes they have learned during the socialization process. Ninety-three percent of these students aspire to college. For those upper-class students who develop negative evaluations of society, however, 83% desire a college education. They are rejecting certain values instilled in them by their parents in light of their negative estimates of society.

Among lower-class students who possess positive societal evaluations, 54% aspire to college. The comparable figure for lower-class students with negative evaluations is 35% desiring a college education. Lower-class students developing a positive appraisal of society are much more likely to desire a college education than if they had not developed these evaluations. They may be rejecting the parental values, attitudes and beliefs in favor of those which are more congruent with their own evaluations of society.

Students' evaluations of their school have an effect similar to that of societal evaluation upon the relationship of socioeconomic status to educational aspirations. However, the effect of students' attitudes toward school is much more pronounced on lower-class students than was societal evaluation, and much less pronounced on upper-class students than was societal evaluation (Table 5.10). Among upper-class students, 6% more of those with positive attitudes toward school desire a college education than those with negative attitudes (92% and 86%, respectively). Among lower-class students, 24% more with positive attitudes desire college than those with negative attitudes (56% and 32%, respectively). Thus, the lower the social class of students, the more important is their attitude toward school in determining their aspirations for college.

It is true that no matter what the students' attitudes to school are the higher the socioeconomic status the greater the percentage desiring college; it is, also, true that the lower the socioeconomic status the greater the difference in the percentage of students with college aspirations depending on whether they have positive or negative attitudes toward the school.

The reason for the greater importance of the school the lower the social class of the students is based upon the values that students learn from their parents. Upper-class students internalize a set of values which includes not only respect for education but, also, an understanding that education is a necessary condition for achievement. Lower-class students, on the other hand, may not internalize this value set because their parents had a dissimilar set of values. Lower-class students are more likely to internalize values which stress immediate rewards and independence from parents. Lower-class students are not exposed to and, therefore, do not internalize values which stress college education.

For the lower-class student, the school experience may be one of the few in which he is shown or taught that education can be an enjoyable and worthwhile endeavor. To the extent that this occurs, he may desire to continue his education. That the school is significant in shaping the educational aspirations of lower-class students has tremendous importance for educational policy planners and school officials. These considerations will be taken up in the final chapter.

Just as students' evaluation of society and school greatly influence the effect of socioeconomic status on their educational aspirations, so too do their self-evaluations. Table 5.10 shows that no matter what the students' self-evaluations, the higher their socioeconomic status, the more likely they are to aspire to college. However, the lower the socioeconomic status, the more importance self-evaluation assumes. Thus, we find a greater percentage of lower-class students possessing positive self-evaluations aspiring to college than those students with negative self-evaluations in the same class. While 13% more upper-class students with positive self-images have aspirations for college than among those with negative self-images (94% and 81%), 21% more lower-class students with a positive self-image desire college than among students with negative self-images. The difference between having positive or negative feelings about oneself appears much more crucial vis-a-vis their educational aspirations for lower-class students than for those in the upper-class.

Students' subjective class identification was found to be a moderately strong influence upon their educational aspirations. Table 5.11 presents evidence concerning the degree to which this influence is modified by the three types of personal evaluation. Considering first the effect of students' evaluations of society, it is apparent that no matter what the evaluation, greater percentages of those students who identify themselves as "well-off" aspire to college than students who are "not well-off." But, among students with the same class identification, the more negative the students' evaluations of society, the less likely they are to aspire to college. Whereas 83% of those students who believe they are well-off and who positively evaluate society desire a college education, 20% fewer (63%) of those who are well-off having negative evaluations of society so desire. The comparable difference for students who define themselves as "not well-off" is 26% (59% and 33%, respectively). Students' evaluation of society, then, has similar strong effects upon all students no matter what their subjective class identification.

This finding should be of paramount interest to those school and public officials concerned with increasing the number of students who will go on to higher levels of education. For, not only would remedial measures benefit students who identify themselves as members of a lower status group but, they would benefit all students. While it is not our present purpose to suggest what remedial measures might be beneficial, we shall speculate upon this in the final chapter.

The reasons that students' evaluations should influence so strongly the effect of subjective class identification upon aspirations for college and yet have only a moderate influence on the effect of objective socioeconomic status upon aspirations (See Table 5.10), are complex. However, if we keep in mind the previous interpretations of the meaning of objective status for students' aspirations for college, the reasons seem less complex. A student's objective socioeconomic status indicates the type of educational values he has internalized as a function of being reared in a family with a particular status. That is, during the socialization process, the student internalizes values, attitudes and beliefs which are held by his parents. And, the higher the family social status, the more apt the student is to learn values, attitudes and beliefs which predispose him to desire a high level of education. A student's subjective class identification is less indicative of the types of values he has internalized. It is unlikely that the student is even aware of these values, beliefs and attitudes he has incorporated. Even if he were aware of them, it is not likely that he would employ them in his evaluation of his social status. Rather, students' feelings of status security or insecurity relative to others with whom they are familiar are probably based upon the possession of material goods, quality of residence, etc. Thus, the effect of these two measures (objective socioeconomic status and subjective class identification) upon aspirations are qualitatively quite different. In the first case, effects are due to differential values of which students are probably not aware and which are not personally determined by them. In the second case, effects are due to differential personal definitions of one's social position relative to others. Therefore, students who define themselves as "well-off" feel that, relative to others, they are materially and financially superior. However, these feelings do not involve considerations of other factors such as internalized values.

Thus, no matter what the student's subjective class identification, if he has positive attitudes to society, he believes education is a worthwhile goal. His feelings of social superiority or inferiority, since they are not based on educational values, cannot nullify the effect of these positive evaluations. Similarly, if students have developed negative attitudes toward society, they will not desire to obtain a college education. In this instance, their feelings of social superiority or inferiority cannot heighten their desires since they are not based on educational values.

Considering the influence of students' evaluations of school and self upon the relationship between subjective class identification and aspirations for college (Table

5.11), we observe almost identical forces as those just discussed. For example, among students who identify themselves as "well-off," 14% more of those having positive attitudes toward school desire college than students who have negative attitudes (82% and 68%, respectively). The comparable difference for students who are "not well-off" is 16% (58% and 42%, respectively). We conclude that improving students' attitudes toward school can increase greatly the percentage of students desiring to obtain a college education no matter what their feelings of social superiority or inferiority might be. Identical conclusions are reached when we consider students' self-evaluations.

The immediate implications of these findings are obvious. By creating in students positive attitudes about society, school and self, we can greatly overcome differences due to subjective class identifications.

The final relationship hypothesized to vary as a function of students' personal evaluations is that between peer plans and students' aspirations for a college education. Table 5.12 shows this relationship for each of the three personal evaluations. Peer plans continue to exert pressure upon students' aspirations for a college education. These effects are modified depending upon whether the students have positive, medium or negative attitudes to society, school and self. Among students with a positive attitude to society, 85% of those whose friends have plans to attend college say that they desire a college education.

For students with negative attitudes to society, 71% express this aspiration. Comparable figures for students whose friends have plans other than attending college or junior college are 50% and 34%. We find that 14% more students with positive attitudes to society have high educational aspirations than students with negative attitudes even though their peers plan to go to college. The percentage difference for students whose peers have other plans is 16%.

From these findings, we suggest that one possible way in which students can be encouraged to aspire to higher levels of education is by developing in them more positive evaluations of society. Doing this, regardless of the pressures which the student may experience as a member of a group, is likely to increase his aspirations for college. Rather than stressing the need for students to associate with groups of students who already have high aspirations, a belief parents seem to hold important, which requires the severing of personal relationships and the change of allegiance, administrators could use more subtle means to increase the aspirations of students. Of course, to the extent that students' attitudes to society develop outside of the school, administrators lose influence and other social agencies should take charge.

While students' evaluation of society does appear to influence the relationship under discussion no matter what the plans of the students' peers, this does not seem to be the case when we consider the effect of students' attitudes to the school. Table 5.12 indicates that 82% of those students with a positive attitude to the school whose peers plan to go to college or junior college express desire for a college education. Among students with negative attitudes, 77% express this desire. Thus, only 5% more students desire a college education as a function of having positive attitudes to school. However, if we consider students whose peers have plans other than going to college or junior college, 55% with positive attitudes desire a college education as compared to 33% of those with negative attitudes. That is, 22% more of these students desire college as a function of having positive attitudes to school.

It appears that for those students who have affiliations with others who plan to attend college, attitudes to the specific organization in which they currently function do not significantly alter their own aspirations. The influence of their peers is enough to overcome even negative attitudes they may have to their school. However, for those students who do not have peer relations with students who plan to go to college, the school experience is a significant one in determining their desires to continue their education. If the school experience is a pleasant and utilitarian one resulting in positive attitudes toward the organization, these students may then wish to continue this association with formal education. But, for those students who have neither friends who plan to go to college or positive attitudes to their school, there is nothing that has influenced them to pursue further education.

The effect of students' self-images upon the relationship of peer influences (Table 5.12) to aspirations is similar to that just discussed. Whereas 8% more students with a positive self-evaluation aspire to college than those with negative self-evaluations among students whose peers plan to attend college or junior college (81% and 73%, respectively), 17% more of the students with a positive self-evaluation aspire to college than students with a negative self-evaluation among students whose peers have plans other than college or junior college. Again, peer influence for college or junior college is enough to overcome even the possible effects of a negative self-evaluation. However, if one is not subject to peer pressures for high levels of education, the importance of one's self-evaluation becomes significant. For those students who lack both the support and encouragement of peers and feelings of personal worth and ability, pursuance of higher levels of education is a remote and unrealistic goal.

In this section of Chapter V, we have investigated the extent to which students' personal evaluations of society, school and self modify the relationships between social structural conditions, interpersonal relations and students' educational horizons. We found students' attitudes toward society to be a significant influence upon the relationship of subjective class identification, peer pressure and parental influence to educational aspirations. Students' attitudes toward school and self were less significant influences. However, in specific instances, both of these personal evaluations were shown to be extremely important factors in modifying the original relationships. We find both students' attitudes to school and their self-images significantly modify the relationship between subjective class identification and aspirations for college.

Several findings in the present section of this chapter are of particular importance. For example, students' attitudes toward school appear to be a significant factor, under certain conditions, in determining whether students will aspire to college. We found that among students whose parents have medium or low levels of educational desires for them, the development of positive attitudes toward school may lead them to desire a college education. That is, the school can compensate for the lack of positive parental pressures.

Similarly, we found that students' self-images are important among lower-class students in determining whether they will have aspirations for higher education. For lower-class students who are not exposed to values which predispose them to pursue higher levels of education, the development of a positive self-image may help overcome the lack of exposure to positive educational values.

We have shown that both personal and demographic characteristics and personal evaluations do, under certain conditions and to varying degrees, modify, but never change, the original relationships independently of one another.

We shall now consider the interactive effects of these two factors upon certain of the more interesting and significant findings so far revealed.

# VI. THE EFFECT OF SELECTED PERSONAL EVALUATIONS UPON UPON STUDENTS' EDUCATIONAL ASPIRATIONS AMONG SUBGROUPS OF THE SAMPLE

The pressure which children feel their parents bring to bear upon them has been shown to be one of the strongest influences upon the students' educational aspirations. If children perceive their parents as exerting pressure upon them to obtain a college education, it is likely that the children will express a desire for a college education (See Table 3.11). The influence of parental pressure was found to be strong no matter whether the students were male or female or in junior high school or senior high school (See Table 5.1). We concluded from these findings that parental pressure for students to obtain a college education outweighed both sex role differences and differences due to age and grade in school. While 52% of the girls in the total sample expressed desire for a college education (See Table 3.4), 85% of the girls whose parents expressed the desire that their daughters obtain a college education aspired to this level (See Table 5.1). Comparable figures for boys were 67% (Table 3.4) and 89% (Table 5.1). We suggested that those parents who desire that their daughters obtain a college education may not teach their children that education is a relevant dimension along which the sexes should differ. This would explain why approximately equal percentages of boys and girls, whose parents desire that they obtain a college education, aspire to that level.

Considering grade in school as both a measure of age and length of time spent in the school system, we found that among students in different grade levels there was little difference between the percentages of students expressing a desire for college as a function of the pressure their parents brought to bear (See Table 5.1). Of course, it is entirely possible that vis-a-vis parental pressure, the variables of age and grade in school nullify each other. That is, the longer students are in the school system, the greater the number of negative experiences they may have. These may reduce the percentage aspiring to college. However, the older a student is, the longer he has been subject to his parents' influences. These positive influences appear to overcome the possible negative influences of the school.

While sex, age and grade in school do not affect the relationship between parental pressure for college and students' aspirations for the same, the course of study in which students are enrolled does seem to do so. As we reported previously, among junior and senior high school students enrolled in a college preparatory course of study whose parents desire that they go to college, about equal percentages of students express this desire (96% and 95%, respectively; See Table 5.2). However, among similar students not enrolled in a college preparatory course, 76% of the junior high school students and 52% of the senior high school students whose parents desire that they go to college have college aspirations. We concluded from this finding that while parental pressure retains some influence upon students not in a college preparatory course, this influence decreases as students move from junior high school to senior high school. We interpreted this lessened effectiveness as due to the awareness of senior high school students that not being enrolled in a college preparatory course, they are not prepared to pursue higher levels of education, no matter what their parents desire. In other words, to desire college is unrealistic.

In our analysis of the effect of students' personal evaluations upon the relationship between parental pressure and students' aspirations for college, we found students' attitudes toward society to be of significant influence. Among students with positive attitudes toward society, 12% more students whose parents desire that they go to college aspire to this goal than among those with negative attitudes toward society (93% and 81%, respectively, See Table 5.9). We interpreted this finding as implying that students with negative attitudes toward society may disregard parental influence and advice as incorrect, based upon their own experiences.

Students' attitudes toward school were also found to affect the relationship between parental pressure and students' aspirations for a college education (See Table 5.9). This effect was most pronounced among those students whose parents expressed desires that their children obtain lower levels of education. Among students with a positive attitude toward school, 5% more of those whose parents desire that they go to college express this aspiration than similar students with negative attitudes toward school (82% and 77%, respectively). The comparable difference among students whose parents have lower educational aspirations for their children is 12% (55% and 33%, respectively). School experiences and resulting attitudes toward school seem to be a more important influence upon aspirations for college among students whose parents do not exert pressure for their children to obtain higher levels of education.

The effect of parental pressure upon students' aspirations for college varies depending upon the course of study in which students are enrolled and their attitudes toward society. This effect varies, also, depending upon their attitudes to school.

Among both junior and senior high school students, if parents exert pressure for students to attend college then they are likely to aspire to this level of education regardless of their course of study or attitudes toward society. However, as expected, the relationship between parental pressure and aspirations is most pronounced among students enrolled in a college preparatory course of study. Among junior high school students enrolled in a college preparatory course and who have positive attitudes toward society, 49% more aspire to college as a function of parental pressure for this goal than if such pressure is not present (97% and 48%, respectively). Comparable differences for junior high school students not enrolled in a college preparatory course are 64% (84% versus 20%) and 52% (66% versus 14%).

When we consider senior high school students, a different pattern is apparent. Among senior high school students enrolled in a college preparatory course of study, and with positive attitudes toward society, 54% more of those students whose parents encourage them to go to college aspire to this level of education than those whose parents do not encourage them (97% and 42%, respectively). The difference for similar students with negative attitudes toward society is 60% (94% and 34%, respectively). Comparable figures for senior high school students not enrolled in a college preparatory course are 38% and 41%. Thus, among senior high school students not enrolled in a college preparatory course, the relationship between parental pressure for college and students' aspirations for this level of education is quite weak. It appears that for senior high school students, the condition of their being enrolled or not enrolled in a college preparatory course is enough to determine whether or not they will aspire to college. For those not enrolled in this type of course, there is the appraisal that they simply are not prepared to pursue higher levels of education, regardless of their attitudes toward society.

For junior high school students, however, this realization has not yet occurred. So long as parents attempt to influence their children to attend college, large proportions will so desire. This influence, in addition to the students themselves having positive attitudes toward society, serves to reinforce this desire. In other words, seniors not enrolled in a college preparatory course are constrained from desiring to obtain a college education; and, their positive attitudes toward society can do little in overcoming the effects of this constraint. Among senior high school students enrolled in a college preparatory course, however, the negative constraints are not operative. Therefore, the existence of positive attitudes toward society enhances their desire for a college education. Among junior high school students enrolled in other than a college preparatory course, the negative constraints are less effective and their positive attitudes toward society become significant in determining their aspirations.

Considering the effect of students' attitudes toward school upon the relationship between parental pressure and students' aspirations for college among junior and senior high school students in differing courses of study, relationships similar to those just discussed appear (See Table 6.2). No matter what the grade in school, course of study or attitude toward school, students whose parents desire that they obtain a college education are more likely to aspire to this level of education than students whose parents have lower aspirations for their children. However, this relationship between parental pressure and aspirations is much weaker among senior high school students not enrolled in a college preparatory course of study than among other subgroups of students. Parental pressure appears to have lost its influence for these students. However, the existence of positive attitudes toward school can, to some extent, increase the relationship between parental pressure for college and students' aspirations of that goal. Thus, for example, while 45% of those senior high school students enrolled in a college preparatory course and who have negative attitudes toward society aspire to college as a function of their parents' influences; 62% of those with positive attitudes whose parents influence them to go on to college so aspire.

When we examined the effect of students' self-evaluations upon the relationship between peer influences and aspirations for college, we found the original relationship to hold. That is, regardless of students' self-images, if students' peers plan to attend college then the students themselves are likely to aspire to this level of education. While the original relationship did not change, we found important modifications. Among students with positive self-images a considerably greater percentage of students whose peers plan to attend college also express this aspiration than similar students among those with negative self-images.

In Table 6.3 we examine the relationship of peer influence to students' aspirations for college when controlling on sex, grade level and attitudes toward self. Regardless of the sex, grade level of self-image, students whose peers plan to attend college themselves express a desire for this educational goal. Thus, peer influences operate as a factor in determining aspirations independent of the other three factors.

Those students most likely to aspire to college are junior high school males with positive self-images and whose peers plan to attend college (94%). This compares to those students least likely to aspire to college, female senior high school students with negative self-images whose peers do not plan to attend college (17%).

We see from Table 6.3 that students' self-evaluations, i.e., their self-images, do modify the relationship between peer influences and their aspirations for college. These modifications are more apparent among junior high school students than among similar senior high school students. The fact that students' self-images are stronger modifiers among junior high school students than among senior high school students reinforces an earlier interpretation concerning the efficacy of peer influences in determining aspirations. We suggest that while peer influences are important in determining the aspirations of both junior and senior high school students, these influences are more unstable among junior high school students. That is, this influence can be modified by changing social psychological factors which, in this case, would be self-image. This, in turn, again suggests the possibility that among younger students, educational aspirations may not be a salient factor in determining peer group affiliations. In a sense, the younger student is "freer" to alter or maintain educational aspirations which diverge from those of other students in his peer group.

The finding that greater percentages of students with positive self-images aspire to college than those with negative self-images even though their peers do not plan to go to college or junior college also suggests the power of social psychological factors to overcome the lack of other positive forces which may influence students to aspire to college. Thus, even though students may not have relationships with peers who plan to go to college or junior college, the fact that they feel as capable, acceptable and competent as others influences them to desire higher levels of education than their peers.

While positive self-evaluations can influence students whose peers do not plan to attend college to aspire to higher levels of education, so, too, can their experiences in school (See Table 6.4). While it is true that the original relationship between peer influences and students' aspirations for college hold regardless of students' attitudes toward school, Table 6.4 indicates that attitudes toward school are particularly relevant among junior high school students whose peers do not plan to go to college or junior college. Among junior high school students enrolled in a college preparatory course whose peers plan to go to college or junior college, 6% more of those with positive attitudes toward school aspire to college than among those with negative attitudes (96% and 90%, respectively). Among similar students whose peers do not plan to go to college, 22% more aspire to college as a function of having positive attitudes toward school (84% and 72%). Similar results appear when we consider junior high school students enrolled in other than a college preparatory course of study. In fact, among these students, if one's peers plan to go to college, there is no difference between the percentage of students with aspirations for college, as a function of their attitudes toward school (63% and 63%, respectively). For those students who lack support or positive influence from peers for their educational goals, the school takes on added significance for them. Indeed, the school may be one of the few factors which is able to encourage them to pursue higher educational goals.

This same influence of attitudes toward school also holds among senior high school students, albeit to a lesser degree. Thirteen percent more students who are enrolled in a college preparatory course but whose peers don't have college plans aspire to college as a function of their positive evaluation of school (80% and 67%). However, only 6% more of these students desire college if they are not enrolled in a college preparatory course (20% and 14%). For senior high school students not enrolled in the college preparatory course, the effect of having positive attitudes toward school is less significant in influencing students to aspire to college than among other students because they are not academically prepared to go on. No amount or degree of personal positive evaluations can overcome their unpreparedness. That is, there are certain constraints upon them which can not be overcome through the development of positive personal evaluations. The idea of constraints upon the development of students' educational horizons will be more fully discussed in that section of Chapter VII dealing with the theoretical implications of the present study.

Students' subjective class identification was previously shown to be directly related to their educational horizons. The higher the subjective class identification of students, the more likely they are to desire and expect a college education. When we examined this relationship among various subgroups, the original relationship continued to hold, but some interesting modifications occurred. We found, for example, that the college aspirations of males, no matter what their grade level, were less affected by identifying themselves as low status than were females. We interpreted this modification as indicating that feelings of status anxiety are more important among females than among males. Further analysis suggested that the effect of status anxiety became more pronounced as girls move from junior high school to senior high school. The opposite seemed to be the case among boys.

In Table 6.5, we examine the effect of students' evaluations of society upon the relationship between subjective class identification on their aspirations for college among males and females in junior and senior high school. In Table 6.6, this same effect is considered for junior and senior high school students in college preparatory and other courses of study.

From Table 6.5 it is evident that regardless of sex, grade in school or societal evaluation, students who identify themselves as well-off are more likely to aspire to college than those who identify themselves as less well-off. However, among the subgroups there are important modifications of this relationship. Among male junior high school students, for example, 25% more of those students with positive attitudes toward society who are "well-off" aspire to college than those who have negative attitudes (88% and 63%, respectively). The comparable difference for similar senior high school students is 11% (85% and 74%, respectively).

These findings suggest that among older male students, i.e., senior high school males, the effects of feelings of status insecurity can be more easily overcome with the development of positive attitudes toward society than among younger students. It may be that for younger students, there is a less obvious link for them between evaluations of society and aspirations. Thus, for junior high school male students, feelings of subjective status anxiety are more important determinants of aspirations than among senior high school males for whom attitudes toward society are more important. In general, we may conclude that among males, positive personal evaluations about society can overcome the negative effects of feelings of status insecurity. This effect is most pronounced among senior high school students but, also exists among junior high school students.

The influence of students' attitudes toward society upon the effect of subjective class identification on students' aspirations for college among female junior and senior high school students is opposite to its influence among males . Whereas positive attitudes toward society overcame the negative effects of status anxiety among senior high school males, these attitudes are not nearly so effective among female senior high school students as they are upon female junior high school students. We find, in Table 6.5, that 40% more of the female junior high school students who identify themselves as not well-off, but who have positive attitudes toward society desire college education than among similar students with negative attitudes (69% and 29%, respectively). The comparable difference for female senior high school students is 20% (44% and 24%, respectively).

The findings presented in this chapter, as with the major findings presented in previous chapters, may be interpreted in two ways. First, we may consider the findings as the base from which partial solutions to important social phenomena may be made. Specifically, the data here analyzed suggest possible steps which may be taken to increase numbers of students to desire high levels of education. At this level, the present study is concerned with providing generalizations which may be useful in determining educational policy.

At a second, more abstract and, this writer would argue, a more important level, the findings of the present study may be interpreted as a contribution to sociological theory, in general, and stratification theory, in particular. In the following chapter, each of these interpretations is considered in detail.

## VII. SUMMARY AND CONCLUSIONS

In this section of the present chapter, we shall focus upon the theoretical interpretation of the findings presented in the preceding chapters. This theoretical interpretation consists of two parts: the general theoretical model upon which this study is based and, an examination of the degree of fit between the empirical data and the model.[1]

### A. The Theoretical Model

The independent variables presented in the operational and conceptual models of this study (See pp. 40-52) represent two networks of societal conditions within which all individuals function. These two networks have been identified as social structural conditions and inter*personal relations. Any individual may be studied in his* relations to either or both of these networks. Indeed, this has been the core idea of many of the classic theories of man. Marx, for example, has stressed the analysis of man in his relation to structural conditions of society.[2] Freud, on the other hand, has stressed the network of interpersonal influences upon man.[3] In fact, one heuristic device in the classification of sociological and social-psychological theories is to consider which of these two networks the theorist has considered as most significant, or relevant.

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[1] The differences between what we here refer to as the theoretical model and the conceptual and operational models presented in Chapter II hinges upon the level of explanation and abstraction with which we are dealing. The theoretical model should be considered the most abstract and general level of explanation.

We have presented both networks as significant determinants of students' educational horizons. In a more general sense, however, these networks may be viewed as determinants of any aspirations of individuals. The fact that we have focused upon one type of person (students) and one type of aspiration (educational) does not suggest that the model may not be employed using other types of people and other aspirations.

The major question we must pose concerning the structural network and the interpersonal network is: How do these two contribute to the determination of aspirations?[4]

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[2] Sidney Hook, Marx and the Marxists (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1955), pp. 11-34.

[3] Calvin S. Hall and Gardner Lindzey, Theories of Personality (New York: John Wiley and Sons, Inc., 1957), pp. 29-75.

[4] We shall use the word "aspirations" in the remainder of this discussion. We could, also, have used the term "expectations." However, since most of the interpretations in the present study were made in terms of aspirations, we shall use this term to retain continuity.

We suggest that the mechanism by which each of these contributes to the determination of aspirations be referred to as the Mechanism of Sociological Constraints. By this we mean that every individual, by the nature of his relationships to each of these networks, is more constrained or less constrained in the development and adoption of values and aspirations. Every individual is not "free" to aspire to any goal. Rather, he is free to aspire to only those goals which conditions do not constrain him from aspiring to.

In addition to the constraints imposed upon individuals by their relationships to the structural and interpersonal networks, we suggest that there are other types of constraints operating. These we may refer to as the Mechanism of Social-Psychological Constraints. These, too, restrict more, or less, individuals from aspiring to certain goals or values.

Given these two mechanisms and considering each as constraining or not constraining individuals from aspiring to certain goals, four logically possible situations result. See Figure III below.

The core problem of the present dissertation has been to investigate the relationship between the presence or absence of social structural or interpersonal constraints and social-psychological constraints, and the way in which these relationships influence students' aspirations for college. As was suggested earlier, this same

## FIGURE III. CATEGORIES OF CONSTRAINING SITUATIONS

| | | Social-Psychological Constraints | |
|---|---|---|---|
| | | + | - |
| Social Structural Constraints<br>or<br>Interpersonal Constraints | + | 1 | 2 |
| | - | 3 | 4 |

"+" represents the absence of constraints upon aspirations.

"-" represents the presence of constraints upon aspirations.

1. In the first type of situation, individuals' aspirations are neither constrained by their relationship to either social structural conditions or interpersonal conditions, or by their social-psychological states. These individuals are most free to aspire to a given goal.
2. In Type 4, we have conditions diametrically opposed to the Type 1 situation. Individuals are constrained both by their social-psychological states and by their relationship to social structural conditions or interpersonal conditions. These individuals are least likely to aspire to a given goal.
3. In situations 2 and 3, the two types of constraints are in opposition to one another. In Type 2, the major question to be answered is: Does the existence of social-psychological constraints alter the influence of positive social structural or interpersonal conditions upon aspirations and, if so, to what extent?
4. Similarly, in Type 3, does the fact that there are no social-psychological constraints alter the negative influence upon aspirations due to the existence of social structural or interpersonal constraints and, if so, to what extent?

theoretical model could be used to investigate aspirations for a variety of goals.

In addition to examining how the interplay between sociological and social-psychological constraints influence students' educational aspirations, we examined these influences among various categories of students. The dimensions along which these categories were defined (demographic characteristics and contextual characteristics) also may be considered as further constraints upon aspirations. The exact nature of these constraints will be discussed below.

## B. The Fit Between Data and Model

We may now consider the specific concepts used in the present study with regard to the manner in which each may be expected to constrain or not constrain students' aspirations for college. After this consideration, we shall briefly summarize the degree to which our data confirm these expectations.

The social structural constraints in the present study are represented by the independent variables of social class position and subjective class identification. A student's social class position may serve as a constraint upon his aspirations in a number of ways depending upon the specific class position. The lower the social class position of individuals, the more constraints they have upon them. For example, lower class children tend not to internalize values which would predispose them to aspire to high levels of education for their parents are not likely to possess these values. Also, lower class students may desire more immediate types of gratification. Similarly, they may not be able to financially afford the four years of unproductiveness required to obtain a college education not to speak of the financial expenditure required to attend college. These kinds of conditions, we suggest, are constraints upon students' desires for a college education.

Students' subjective class identification represents the second of the social structural constraints upon students employed in the present study. As a constraint upon students' aspirations, their subjective social class identification probably operates in one of two ways. First, it represents a more or less realistic appraisal of one's social position. To the extent that students identify with a lower social class, they may not feel that college is a realistic goal and, therefore, not aspire to it. Secondly, students' subjective class identification may be considered an indicator of relative degrees of status anxiety. To the extent that students believe that high status is an important prerequisite for going to college, students who have feelings of status anxiety are constrained from holding this aspiration.

The independent variables of Parental Pressure and Peer Influence represent the two types of constraints imposed upon students through their interpersonal relations.

If parents do not encourage their children to attain a college education, the children are, in a sense, constrained from aspiring to this. Parental sanctions will not exist as possible positive influences. Similarly, negative sanctions will not be imposed or threatened as a consequence of not meeting the parental wishes.

If students affiliate with other students who do not aspire to higher levels of education, this, too, may be considered a constraint upon their own aspirations. There is no need for the student to aspire to higher levels of education since this is not a relevant criterion for group membership. In fact, the opposite condition may be the case. Students who may otherwise aspire to a college education may not do so in fear of losing friends who do not so aspire.

Each of the four independent variables may represent conditions of constraint upon students' aspirations for a college education. The degree to which the data from the present study conform to the theoretical model is suggested in Chapter III (See pp. 81-85). We found that each of the independent variables was directly related to students' aspirations for college. Each of the following categories of students had a greater percentage aspiring to college than their counterparts: students of higher objective social class position, students who identify with high status social groups, students whose parents exert pressure for them to go to college, and students whose peers plan to attend college. In other words, these students were not constrained from having college aspirations.

The social-psychological constraints upon students, in the present study, consisted of their personal evaluations as measured by three types of attitudes: attitudes toward society, school and self. Negative attitudes about each of these objects may be considered constraints upon students' aspirations for college in that they represent negative evaluations of conditions which are likely to induce students to desire college. In Chapter IV (See pp. 92-99), we examined data bearing upon the relationship between students' attitudes toward society, school and self and their aspirations for college. These data support the formulation of the theoretical model in demonstrating that students with positive societal, school and self evaluations are much more likely to aspire to college than those students with negative evaluations. Students with positive evaluations are less constrained from aspiring to college than other students.

In our discussion of the theoretical model, we suggested that the dimensions along which major subgroups of the sample were defined might also be considered constraints upon students' aspirations. Thus, the subgroups, themselves, are composed of students who are more or less likely, depending upon the existing constraints, to desire college. One of the dimensions of the subgroups is sex. An individual's sex may serve as a constraint upon his aspirations because of differing sex role definitions. Boys should be less constrained from aspiring to college because as males they must, at some time in the future, become the principal wage earner for their family of procreation. The data support this contention (See Chapter III, p. 77). A significantly greater percentage of males do aspire to a college education than females.

The second dimension defining subgroups of the sample is students' course of study in school. Those individuals enrolled in a college preparatory course of study should certainly have fewer constraints upon their educational aspirations than those not enrolled in this type of course. College preparatory students have made a commitment to pursue higher levels of education and, because they have made this pledge, they are obtaining the knowledge necessary for them to go on to college. Students not enrolled in a college preparatory course, however, have not made the commitment to the pursuance of higher levels of education and, as a result, are not obtaining the necessary knowledge to pursue this goal. These students, we suggest, are indeed constrained from aspiring to college. The data from the study again support the theoretical model. Significantly greater percentages of students enrolled in a college preparatory course aspire to college than among those in other courses of study (See Chapter III, pp. 78-79).

The final dimension used to define subgroups of the sample is that of age/grade. As a constraining influence upon students' aspirations for college, age/grade is relatively weak. Only slightly greater percentages of younger students, i.e., students in lower grades, aspire to college than among older students (See Chapter III, pp. 77-78). It does not appear that nearness to the time at which a student must decide upon his future educational plans is a constraint upon his level of aspiration.

We have demonstrated that with one major exception, each of the variables presented in the operational model may be considered as a constraint, more or less, depending upon the value of the variable on students' aspirations for a college education. Thus far, there appears to be a good fit between the theoretical model and the empirical data.

The next step in confirming the theoretical model is to examine the effect of the various degrees of constraint imposed upon students by their relationships to the social structural and interpersonal networks among the subgroups of the sample which are defined by certain other types of constraints. In effect, what we must look for are the differences in percentages of students aspiring to a college education under differing patterns of constraints. We can, in order to confirm the theoretical model, examine four possible patterns of constraints. First, we shall examine those students whose relationships to the social structural and interpersonal networks constrain their aspirations and who, in terms of their demographic and contextual characteristics, are restricted, also. The percentages of these students can then be juxtaposed to their diametrically opposed group--those students neither constrained by their relationships to the two networks or by their demographic and contextual characteristics. The third and fourth patterns of constraints we will examine consist of those students under "cross constraints," those who are restricted because of the social structural or interpersonal relationships but not constrained because of their demographic and contextual characteristics. We shall look at the converse, also--those students whose demographic and contextual characteristics constrain their aspirations but whose relationships to the social structural and interpersonal networks do not so constrain them. In both cases, we expect the percentage of students under "cross constraints" who aspire to college to fall between the two extremes, i.e., between the percentage of students characterized by severe constraints. The differences in the percentages of students aspiring to college between these two groups should permit us to draw conclusions about which types of constraints are more important in determining aspirations for college--social structural, interpersonal or contextual and demographic. In Tables 7.1 and 7.2 these comparisons are presented. We have listed those characteristics shown to be more constraining or less constraining upon students for ease of interpretation. They are:

Constraining Social Structural and Interpersonal Conditions

Low objective social class position.
Low subjective class identification.
Low degree of parental pressure for college.
Low degree of peer influence for college.

Nonconstraining Social Structural and Interpersonal Conditions

High objective social class position.
High subjective class identification.
High degree of parental pressure for college.
High degree of peer influence for college.

Constraining Demographic and Contextual Characteristics

Female
Senior high school
Not enrolled in college preparatory course

Nonconstraining Demographic and Contextual Characteristics

Male
Junior high school
Enrolled in a college preparatory course

The cell entries in Table 7.1 are the percentage of students who are characterized as being constrained or not constrained by either their social structural or interpersonal conditions and their contextual and demographic characteristics. In this case, the two entries in each cell represent the limits below which and above which percentages of students under cross constraints should not extend. That this is, in fact, the case can easily be seen by comparing the above and below diagonal cell entries in Table 7.2 with the corresponding entries in Table 7.1. For example, according to Table 7.1, 51% of students having

Table 7.1

PERCENTAGES OF STUDENTS WHO ASPIRE TO COLLEGE DEPENDING UPON WHETHER THEY ARE CONSTRAINED OR NOT CONSTRAINED BY SOCIAL STRUCTURAL OR INTERPERSONAL FACTORS AND DEMOGRAPHIC/CONTEXTUAL CHARACTERISTICS

|  | Demographic and Contextual Constraints or Nonconstraints | | | |
|---|---|---|---|---|
| Social Structural and Interpersonal Constraints or Nonconstraints | Female Senior High | Male Junior High | Senior High Noncollege Prep. | Junior High College Prep. |
| Low Objective SES | 51% |  | 16% |  |
| High Objective SES |  | 92% |  | 95% |
| Low Subjective Class Identification | 35% |  | 16% |  |
| High Subjective Class Identification |  | 77% |  | 91% |
| Low Degree of Parental Pressure for College | 15% |  | 14% |  |
| High Degree of Parental Pressure for College |  | 89% |  | 96% |
| Low Degree of Peer Influence | 23% |  | 16% |  |
| High Degree of Peer Influence |  | 86% |  | 92% |

## Table 7.2

## PERCENTAGES OF STUDENTS WHO ASPIRE TO COLLEGE AS A FUNCTION OF BEING UNDER CROSS-CONSTRAINTS

| Social Constructural and Interpersonal Constraints or Nonconstraints | Demographic and Contextual Constraints or Nonconstraints | | | |
|---|---|---|---|---|
| | Male Junior High | Female Senior High | Junior High College Prep. | Senior High Noncollege Prep. |
| Low Objective SES | 52% | | 76% | |
| High Objective SES | | 83% | | 32% |
| Low Subjective Class Identification | 52% | | 81% | |
| High Subjective Class Identification | | 70% | | 32% |
| Low Degree of Parental Pressure for College | 24% | | 46% | |
| High Degree of Parental Pressure for College | | 88% | | 52% |
| Low Degree of Peer Influence for College | 59% | | 80% | |
| High Degree of Peer Influence for College | | 71% | | 35% |

constraints upon their aspirations because of their low social class position, their sex (female) and their grade in school (senior high) desire a college education. The percentage of students who desire a college education and who do not have any of these constraints upon their aspirations (high social class position, male and junior high school students) is 92%. If we now compare the cell of Table 7.2 which represents those students whose objective social class position constrains their aspirations but whose demographic characteristics are not constraining, and vice versa, we find the percentage of students desiring college (52% and 83%) to be within the limits set in Table 7.1.

If we compare the above and below diagonal cell entries in Table 7.1 with corresponding above and below diagonal cell entries in Table 7.2, we can arrive at a more specific indication of the relative degree of constraint the demographic and contextual characteristics impose upon students who are characterized as constrained or not depending upon their relationships to the social structural or interpersonal networks. In the example above, for instance, 51% of the students constrained by their objective social class position, their sex and their grade in school, i.e., lower class females in senior high school, aspire to college. Among students who are similarly constrained by their objective social class position but who are not constrained by their demographic and contextual characteristics, 52%

aspire to college. Thus, we conclude that relative to the constraining influence of low objective social class position, the negative influences of sex and grade in school are unimportant. If one is lower class, this, in itself, is sufficient to explain the low level of educational aspirations. However, if students' aspirations are not constrained by their social class position, i.e., if they are upper class, the sex and grade constraints take on more significance. In fact, 9% fewer female senior high school students aspire to college than the least constrained students (male, junior high school students). The percentages are 83% and 92%, respectively.[5]

Before summarizing the relative effects of the demographic and contextual constraints upon the relationships between social structural factors, interpersonal factors and students' aspirations for college presented in Tables 7.1 and 7.2, we shall consider another specific example.

Among students whose aspirations for college are constrained because their parents do not encourage them to go and because of their grade and course of study--senior high school students not in a college preparatory course--14% aspire to college. Among those students not constrained by these factors--students whose parents desire that they go to college and who are junior high school students in a college preparatory course of study--96% aspire to college. (See Table 7.1) Among those under cross constraints (See Table 7.2), 46% of students whose parents do not encourage them to go to college but who are not constrained by their grade and course of study (junior high school and college preparatory) aspire to college. Thus, we may conclude that for students whose aspirations for college are constrained because their parents do not encourage them, grade in school and course of study are extremely significant in determining if they will aspire to college or not. Indeed, 32% more students will aspire to college if not constrained by their grade and course of study than if they are so restricted. That grade in school and course of study are not only significant constraints among students whose parents do not encourage them to go to college but, also, among students who are encouraged, is also evident. Forty-four percent more students (See Table 7.2) whose parents desire that they obtain a college education aspire to this level as a function of not being constrained by their grade and course of study than those who are restricted by these contextual and demographic factors (Table 7.1).

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[5] Most of this difference can be attributed to differences of sex because we previously demonstrated grade in school to be a relatively weak constraint upon students' aspirations. However, since we cannot identify the exact difference which is due to each factor independent of the other, we shall continue to attribute the 9% difference to both factors.

We can use the difference between the percentage of students with identical social structural or interpersonal constraints but with different demographic and contextual constraints as an index of the influence of these characteristics on the effect of the social structural and interpersonal constraints upon students' aspirations for college. These differences are presented in Table 7.3 and are derived from Tables 7.1 and 7.2 as explained in the examples above.

It is evident from Table 7.3 that no matter whether social structural or interpersonal conditions are constraining or not upon students' aspirations for college, the absence of grade and course constraints greatly increases the percentage of students who aspire to college. Sex, while a relatively weaker constraint, does modify the original relationships, also. Sex of students appears to be of more importance among those constrained by their social structural and interpersonal conditions than among those not so constrained.

In terms of the theoretical model, we may conclude that two of the dimensions used to define subgroups of the sample--sex and course of study--are significant constraints upon students' aspirations for college. Of these two, course of study appears to be the most important. Furthermore, when the social structural or interpersonal constraints are in opposition to the constraints imposed by students' demographic and contextual characteristics, the latter modify the influence of the social structural and interpersonal constraints.

A technique similar to that employed in determining the relative influence of demographic and contextual

## Table 7.3

## PERCENTAGE DIFFERENCE IN STUDENTS' ASPIRING TO COLLEGE AS A FUNCTION OF NOT BEING CONSTRAINED BY IDENTIFIED DEMOGRAPHIC AND CONTEXTUAL CHARACTERISTICS

| | Sex-Grade* | Grade-Course** |
|---|---|---|
| Social Class Constraint*** | | |
| High | 1% | 60% |
| Low | 9 | 63 |
| Subjective Class Identification Constraint | | |
| High | 17 | 65 |
| Low | 7 | 59 |
| Parental Pressure Constraint | | |
| High | 8 | 32 |
| Low | 1 | 44 |
| Peer Influence Constraint | | |
| High | 36 | 64 |
| Low | 15 | 57 |

*Not being constrained by sex and grade is defined, in terms of the variables used in this study, as not being female and not being in senior high school.

**Not being constrained by course of study means being in a college preparatory course of study.

***Social structural constraints are higher the lower the social class position or the lower the subjective class identification. Similarly, interpersonal constraints are high when parents do not encourage their children to attend college or peers do not plan to attend college.

constraints upon students' differing relationships to the social structural and interpersonal networks can also be used in assessing the influence of social-psychological constraints. In terms of the theoretical model, this analysis will permit us to draw conclusions about whether, in fact, individuals' social-psychological states do modify the effect of structural and interpersonal constraints upon them and, if so, to what extent. Conclusions of this type enable us to state conditions which limit or reinforce outcomes resulting from individuals' relationships to the social structural and interpersonal networks. These obviously have implications for social stratification theory.

In Table 7.4 we present percentage of students aspiring to college as a function of being constrained by both their social class position or interpersonal relations and their personal evaluations. Also, we present the percentage of students aspiring to college as a function of not being constrained by either their social class position or interpersonal relations and their personal evaluations. For example, in Table 7.4 we find that 35% of those students who are in the lower class (constrained by their social class position) and who have negative attitudes toward society aspire to college. Conversely, 93% of those students not constrained by either of these conditions aspire to college. Thus, the combined influences of not being constrained by social class position and attitudes toward society can account for a 58% increase in the percentage of students aspiring to college (93% - 35%).

# Table 7.4

## PERCENTAGES OF STUDENTS WHO ASPIRE TO COLLEGE AS A FUNCTION OF BEING CONSTRAINED OR NOT CONSTRAINED BY SOCIAL STRUCTURAL OR INTERPERSONAL FACTORS AND ATTITUDES

| | Social-Psychological Constraints | | | | | |
|---|---|---|---|---|---|---|
| | Societal Evaluation Constraint | | School Evaluation Constraint | | Self-Evaluation Constraint | |
| | High | Low | High | Low | High | Low |
| **Social Class Constraint** | | | | | | |
| High | 35% | | 32% | | 33% | |
| Low | | 93% | | 92% | | 94% |
| **Subjective Class Identification Constraint** | | | | | | |
| High | 33% | | 42% | | 36% | |
| Low | | 84% | | 82% | | 82% |
| **Parental Pressure Constraint** | | | | | | |
| High | 16% | | 33% | | 16% | |
| Low | | 93% | | 82% | | 93% |
| **Peer Influence Constraint** | | | | | | |
| High | 34% | | 33% | | 35% | |
| Low | | 85% | | 82% | | 81% |

Table 7.5 presents the percentage increase in students aspiring to college as a function of not being constrained by either social structural or interpersonal conditions and by social-psychological characteristics, i.e., negative attitudes.

It is evident from Table 7.5 that the data from the present study confirm the theoretical model which represents students' aspirations for college as the consequence of constraining or nonconstraining influences upon students. Although we have compared extreme situations, i.e., students who are totally constrained as compared to those totally unconstrained, this procedure dramatizes the extent to which the data fit the theoretical model.

While Table 7.5 indicates the combined effects of negative constraint upon students' aspirations as compared to the combined effects of nonconstraining conditions, it does not permit us to examine the relative influence of different positions on each of the three attitudes upon the aspirations of students who are constrained or not constrained by their social structural or interpersonal conditions. This comparison can, however, be accomplished by comparing Table 7.6 with Table 7.4. The cell entries in Table 7.6 consist of the percentages of students under cross constraints who aspire to college. By subtracting the appropriate above and below diagonal cell entries in these two tables, we can arrive at the relative effects of students' attitudes upon their aspirations. Table 7.7 presents these differences.

## Table 7.5

## PERCENTAGE DIFFERENCE OF STUDENTS ASPIRING TO COLLEGE AS A FUNCTION OF NOT BEING CONSTRAINED BY SOCIAL STRUCTURAL CONDITIONS OR INTERPERSONAL CONDITIONS AND SOCIAL-PSYCHOLOGICAL CHARACTERISTICS

| Not Constrained By: | Percentage Difference |
|---|---|
| Low SES and Negative Attitudes Toward | |
| Society | 58% |
| School | 60 |
| Self | 61 |
| Low Subjective Class Identification and Negative Attitudes Toward | |
| Society | 51 |
| School | 40 |
| Self | 46 |
| Low Parental Pressure for College and Negative Attitudes Toward | |
| Society | 77 |
| School | 49 |
| Self | 77 |
| Low Peer Influence and Negative Attitudes Toward | |
| Society | 51 |
| School | 49 |
| Self | 46 |

4

Table 7.6

PERCENTAGES OF STUDENTS WHO ASPIRE TO COLLEGE
AS A FUNCTION OF BEING UNDER CROSS CONSTRAINTS

| | Social-Psychological Constraints | | | | | |
|---|---|---|---|---|---|---|
| | Societal Evaluation Constraint | | School Evaluation Constraint | | Self-Evaluation Constraint | |
| | Low | High | Low | High | Low | High |
| **Social Class Constraint** | | | | | | |
| High | 53% | | 56% | | 54% | |
| Low | | 83% | | 86% | | 81% |
| **Subjective Class Identification Constraint** | | | | | | |
| High | 59% | | 58% | | 58% | |
| Low | | 63% | | 68% | | 65% |
| **Parental Pressure Constraint** | | | | | | |
| High | 24% | | 55% | | 25% | |
| Low | | 81% | | 77% | | 83% |
| **Peer Influence Constraint** | | | | | | |
| High | 50% | | 55% | | 52% | |
| Low | | 71% | | 77% | | 73% |

## Table 7.7

## PERCENTAGE DIFFERENCE IN STUDENTS' ASPIRING TO COLLEGE AS A FUNCTION OF NOT BEING CONSTRAINED BY THEIR ATTITUDES TOWARD SOCIETY, SCHOOL OR SELF

| | Not Constrained by Attitudes Toward | | |
|---|---|---|---|
| | Society | School | Self |
| **Social Class Constraint** | | | |
| High | 18% | 24% | 21% |
| Low | 10 | 6 | 13 |
| **Subjective Class Identification Constraint** | | | |
| High | 26 | 16 | 22 |
| Low | 21 | 14 | 17 |
| **Parental Pressure Constraint** | | | |
| High | 8 | 22 | 9 |
| Low | 12 | 5 | 10 |
| **Peer Influence Constraint** | | | |
| High | 16 | 22 | 17 |
| Low | 14 | 5 | 8 |

We may consider the figures presented in Table 7.7 as indexes of the relative strengths or weaknesses of the attitudes examined in altering the outcomes, i.e., aspirations for college, of constraining or nonconstraining social structural or interpersonal conditions upon students.

It is evident from Table 7.7 that in almost all instances in which students are constrained by their social structural or interpersonal conditions, the possession of positive attitudes toward society, school or self can significantly increase the percentage of them aspiring to college. In terms of the theoretical model, structural and interpersonal influences can be significantly modified by social-psychological conditions of the individuals.

We can now summarize the effect of each of the specific attitudes examined in this study. Positive attitudes toward society among students can significantly compensate for three out of four of the constraints imposed upon aspirations. The only constraint not significantly altered as a function of positive attitudes toward society is the one imposed due to parents not encouraging their children to go to college.

Students' positive attitudes toward the school, itself, appear to be the most consistent influence in overcoming social structural and interpersonal constraints. In fact, this attitude is the only one which can counter the negative influence of parents not encouraging their children to go to college. Among these students, 22% more desire to go to college as a function of having positive attitudes to school as opposed to negative attitudes.

Finally, students' positive attitudes toward self alters the effects of three of the four constraints imposed upon them. Positive attitudes toward self do not alter drastically the negative effects of parents not encouraging their children to attain higher levels of education.

In conclusion, we suggest that the data from this study do support the theoretical model which views students' aspirations for college as the result of a series of constraints upon them. To the extent that these constraints are not operative, large percentages of students will aspire to college. If all constraints are operative, only small percentages will so aspire. When constraints are operating at cross pressures to one another, attitudes of students, i.e., social-psychological constraints, can significantly alter the effects of what we here have referred to as the sociological constraints.

## C. Policy Implications

The implications of this study for policy planners and educational administrators have been suggested throughout the chapters. On the basis of the general conclusions presented in this chapter, we can make some policy suggestions. Since, as we have shown, students' attitudes toward society, school and self can alter the negative influence of social background, we shall focus our attention upon means by which these attitudes may be made more positive.

Educational policy planners and school administrators can aid in the development of positive attitudes toward society among children only to a limited degree. Undoubtedly, these attitudes are the consequence of experiences students have had throughout life. Therefore, to expect the school alone to be able to drastically change these attitudes is absurd. However, it is possible that certain school programs may be able to slightly alter students' negative attitudes toward society by increasing their understanding of it. This may involve the initiating of more social science or similar courses in the lower grades.

Students' positive attitudes toward school have been shown to be one of the most important factors in overcoming the effects of constraining social structural and interpersonal conditions. Obviously, there is much that planners and administrators can do to improve students' attitudes toward the school. We suggest that while more research must be undertaken to determine the specific aspects of school which tend to develop negative attitudes in students, two areas in particular be investigated: student-teacher relations and course content. Both of these areas were incorporated into our operational indicator of attitudes toward school and this measure has been shown to be of particular significance in the present study.

In concluding this study, we suggest as a fruitful line of future research one embodying the constraint model used herein. Given this general model but employing different social structural, interpersonal and social-psychological constraints, as well as different types of aspirations to be explained, would enable us to confirm the reasoning in the present study. More importantly, however, it may provide a valuable aid in future sociological theory and research.

# APPENDIX A

## Sources of Questionnaire Items

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# APPENDIX B

This appendix contains the following items:

1. Individual Items: All individual items used in this study to which students were requested to respond; and the individual item marginals.

2. Scores: An indicator of the manner in which individual item categories were collapsed, generally trichotomized or dichotomized.

3. Scales: The individual items, their distributions and the manner in which item categories were collapsed. The distribution of the sum of the individual uncollapsed or collapsed (as indicated) item scores. The breaking points established for the distribution of the sum of scores. The coefficient of reproducibility.

4. Indexes: Basically includes the same information as 3 above. Of course, no coefficient of reproducibility is provided. The method by which items were combined is given and any weighting procedures, if employed, are explained.

# CONTEXTUAL CHARACTERISTICS

## Grade in School

1. 13% Seventh
2. 14 Eighth
3. 16 Ninth
4. 20 Tenth
5. 19 Eleventh
6. 19 Twelfth

## Course of Study

1. 21% General
2. 6 Vocational
3. 52 College Preparatory
4. 18 Commercial
5. 2 Other (specify)

# PERSONAL CHARACTERISTICS

## Age at Last Birthday

1. 2% 11 years
2. 11 12 years
3. 13 13 years
4. 16 14 years
5. 19 15 years
6. 20 16 years
7. 17 17 years
8. 2 18 years
9. 0 19 years

## Sex

1. 51% Male
2. 49 Female

# HOLLINGSHEAD TWO-FACTOR INDEX OF SOCIOECONOMIC STATUS

How far did your father go in school? (Check the highest level he completed).

Father

1. 14% Eighth grade or less
2. 21 Some high school but did not finish
3. 31 High school graduate
4. 7 Some college, but did not finish
5. 12 College graduate
6. 4 More than college
7. 11 Don't know

Which one of the following comes closest to describing the work of your father (or the head of your household)? Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he's retired, mark the one that he did last.

1. 31% Workman or laborer--such as factory, farm or mine worker, filling station attendant, etc.
2. 4 Service worker--such as barber, policeman, waiter, handyman, etc.
3. 13 Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.
4. 18 Skilled worker or foreman--such as a baker, carpenter, electrician, tailor, foreman in a factory or mine, etc.

5. 4 Clerical worker--such as bankteller, bookkeeper, sales clerk, mail carrier, messenger, etc.

6. 5 Salesman--such as store salesman, real estate or insurance salesman, factory representative, etc.

7. 6 Proprietor or owner--such as owner of a small business, farm owner, wholesaler, contractor, restaurant owner, etc.

8. 11 Manager or executive--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.

9. 9 Professional--such as accountant, clergyman, dentist, engineer, lawyer, etc.

The weighting scheme developed by Hollingshead was used. This weighting scheme is:

| Factor Weight | Factor |
|---|---|
| 7 | Occupation |
| 4 | Education |

This results in a possible range of 11 to 77. Hollingshead then suggests the following cutting points for each social class:

| Social Class | Range of Computed Scores |
|---|---|
| I | 11-17 |
| II | 18-27 |
| III | 28-43 |
| IV | 44-60 |
| V | 61-77 |

Based upon the distribution of respondents among the range of computed scores the cutting points used in the present sample were adjusted. The following cutting points, and the proportion of individuals in each social class were computed on the basis of the responses of all students answering both items comprising the Hollingshead Index.

| Range | | |
|---|---|---|
| 11-19 | 9.1% | Social Class I |
| 20-37 | 18.2 | Social Class II |
| 38-51 | 19.8 | Social Class III |
| 52-65 | 30.9 | Social Class IV |
| 66-77 | 22.1 | Social Class V |

After this procedure, the socioeconomic status of those students not answering both questions, 12.4% of the total sample, was estimated where possible. The following procedure was used. The item concerning father's education was collapsed to five categories:

| | |
|---|---|
| Class V | Eighth grade or less |
| Class IV | Some high school but did not finish |
| Class III | High school graduate |
| Class II | Some college but did not finish |
| Class I | College graduate or more than college |

The item on father's occupation was also collapsed to five categories:

Class V-----Workman or laborer--such as factory, farm or mine worker, filling station attendant, etc.

-Service worker--such as barber, policeman, waiter, handyman, etc.

-Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.

Class IV----Skilled worker or foreman--such as a baker, carpenter, electrician, tailor, foreman in a factory or mine, etc.

Class III---Clerical worker--such as bank teller, bookkeeper, sales clerk, mail carrier, messenger, etc.

Class II----Salesman--such as store salesman, real estate or insurance salesman, factory representative, etc.

-Proprietor or owner--such as owner of a small business, farm owner, wholesaler, contractor, restaurant owner, etc.

Class I-----Manager or executive--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.

-Professional--such as accountant, clergyman, dentist, engineer, lawyer, etc.

If a student responded to either of the two items his social class position was then estimated by the above cutting points.

The distribution of all respondents answering either one or both items among the five class positions is as follows:

 8.4% -Social Class I
17.4 -Social Class II
18.6 -Social Class III
31.3 -Social Class IV
24.3 -Social Class V

The percentage of the total sample of respondents answering neither of the two items is .2%.

# SCORE OF STUDENTS' POVERTY AWARENESS

Which of the following best describes your family's financial condition?

| | | |
|---|---|---|
| 1 | 1% | Barely able to make a living |
| 2 | 7 | Have the necessities |
| 3 | 41 | Fairly comfortable |
| 4 | 42 | Very comfortable |
| 5 | 7 | Well-to-do |
| 6 | 2 | Wealthy |

If you were asked to use one of these names to describe your family's social group, which would you say your family belongs to?

| | | |
|---|---|---|
| 1 | 3% | Upper class |
| 2 | 20 | Upper middle class |
| 3 | 60 | Middle class |
| 4 | 9 | Lower middle class |
| 5 | 7 | Working class |
| 6 | 0 | Lower class |

How does your family's standard of living compare with that of most of the families in your neighborhood?

| | | |
|---|---|---|
| 1 | 18% | Above average |
| 2 | 75 | About average |
| 3 | 2 | Below average |
| 4 | 5 | Don't know |

The distribution of respondents among scores after collapsing the above categories as indicated is:

| Score | Percent of respondents with this score |
|---|---|
| 3 | 2.5 |
| 4 | 8.0 |
| 5 | 15.6 |
| 6 | 27.8 |
| 7 | 28.8 |
| 8 | 12.2 |
| 9 | 3.7 |
| 10 | 1.4 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 3,4,5 | 26.2% | - Well off |
| 6 | 27.8 | - Fairly well off |
| 7 | 28.8 | - Not too well off |
| 8,9,10 | 17.2 | - Not well off |

## PARENTAL DESIRE SCORE

How much education do your parents or guardians want you to have?

1 1% They don't care whether I stay in high school

2 8 High school only

3 21 Vocational school, business school, or junior college

4 46 A college degree

5 10 Professional or graduate school

6 14 I don't know

# PEER PLANS SCORE

What do most of your friends plan to do after high school?

1 50% Attend college or junior college
2 7 Get further technical or vocational training
3 15 Work
4 5 Enter the military
5 24 I don't know

## SCALE OF ATTITUDES TOWARD SOCIETY

How strongly do you agree or disagree with the following statements?

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Un-Decided | (4) Dis-agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| These days a person doesn't really know who he can count on | 10% | 34% | 25% | 24% | 7% |
| Nowadays a person has to live pretty much for today and let tomorrow take care of itself | 8 | 25 | 20 | 34 | 13 |
| Things are changing so fast these days that one doesn't know what to expect from day to day | 13 | 48 | 19 | 17 | 3 |

The distribution of respondents among scores after collapsing the above categories as indicated is:

| Score | Percent of respondents with this score |
|---|---|
| 3 | 17.6 |
| 4 | 12.6 |
| 5 | 21.5 |
| 6 | 14.2 |
| 7 | 17.3 |
| 8 | 8.6 |
| 9 | 8.3 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 3,4 | 30.1% | - High alienation |
| 5,6 | 35.7 | - Medium alienation |
| 7-9 | 34.2 | - Low alienation |

By dichotomizing the original items, they form a Guttman scale with a coefficient of reproducibility of .89.

# ATTITUDES TOWARD SCHOOL SCORE

How strongly do you agree or disagree with the following statements?

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Un-decided | (4) Dis-agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| This school is doing its best to give us a good education | 39% | 41% | 11% | 6% | 3% |
| School is often dull and monotonous | 14 | 27 | 18 | 31 | 10 |
| Most students are bored with school | 9 | 38 | 24 | 27 | 2 |
| Our schools do a poor job of preparing young people for life | 4 | 8 | 16 | 46 | 26 |
| A high school education is worth all the time and effort it requires | 54 | 36 | 6 | 2 | 1 |
| A person is foolish to keep on going to school if he can get a job | 2 | 3 | 6 | 28 | 61 |

You know teenagers have all sorts of ideas about school. Some like going to school and some don't. How about you? Do you:

1 23% Like school a lot
2 58 Like school fairly well
3 11 Don't care one way or the other
4 6 Dislike school
5 2 Dislike school very much

The distribution of respondents among scores after collapsing as indicated is:

| Score | Percent of respondents with this score |
|---|---|
| 7 | 3.8 |
| 8 | 6.6 |
| 9 | 8.7 |
| 10 | 10.5 |
| 11 | 12.1 |
| 12 | 13.2 |
| 13 | 12.0 |
| 14 | 10.4 |
| 15 | 8.6 |
| 16 | 5.9 |
| 17 | 4.3 |
| 18 | 2.1 |
| 19 | 1.2 |
| 20 | .6 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 7-10 | 29.6% | --Positive Evaluation |
| 11-13 | 37.3 | --Neutral Evaluation |
| 14-20 | 33.1 | --Negative Evaluation |

## SELF-IMAGE SCORE

Below is a list of terms which describe people. How well would you say each word describes you?

(Check one for each word)

| | | (1) Very Well | (2) Fairly Well | (3) A Little | (4) Not at All Well | (5) Don't Know |
|---|---|---|---|---|---|---|
| 60 | Hard-working | 10% | 56% | 30% | 3% | 1% |
| 61 | Messy | 2 | 7 | 48 | 38 | 5 |
| 62 | Ambitious | 20 | 51 | 24 | 3 | 2 |
| 63 | Cooperative | 23 | 62 | 12 | 2 | 2 |
| 64 | Cheerful | 30 | 57 | 10 | 2 | 1 |
| 65 | Polite & courteous | 29 | 57 | 12 | 1 | 1 |
| 66 | Eager to learn | 28 | 50 | 18 | 3 | 1 |
| 67 | Dependable | 28 | 56 | 12 | 2 | 1 |
| 68 | Rude | 1 | 3 | 30 | 58 | 8 |
| 69 | Well behaved | 21 | 63 | 12 | 1 | 2 |

The distribution of respondents among scores after collapsing the above categories as indicated is:

| Score | Percent of of respondents with this score | Score | Percent of of respondents with this score |
|---|---|---|---|
| 10 | .1 | 16 | 1.3 |
| 11 | .1 | 17 | .6 |
| 12 | .1 | 18 | 2.1 |
| 13 | 0 | 19 | 1.0 |
| 14 | .8 | 20 | 3.4 |
| 15 | .4 | 21 | 1.7 |

| Score | Percent of respondents with this score |
|---|---|
| 22 | 5.4 |
| 23 | 1.9 |
| 24 | 8.3 |
| 25 | 2.7 |
| 26 | 12.0 |
| 27 | 2.9 |
| 28 | 18.0 |
| 29 | 3.7 |
| 30 | 33.2 |

On the basis of the marginals of the above range of scores the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 10-24 | 27.4% | - Negative Self-Image |
| 25-29 | 39.4 | - Medium Self-Image |
| 30 | 33.2 | - Positive Self-Image |

By dichotomizing the original items, they form a Guttman scale with a coefficient of reproducibility of .90.

# EDUCATIONAL DESIRES

What is the greatest amount of education you would like to have during your life?

1 2% I would like to drop out of high school
2 15 Graduate from high school
3 23 Obtain vocational, business school, or junior college training
4 35 Graduate from a regular four-year college
5 25 Study for advanced college degrees

# EDUCATIONAL PLANS

What is the greatest amount of education you realistically expect to have in your life?

1 1% I don't expect to finish high school
2 24 Graduate from high school
3 25 Obtain vocational, business school, or junior college training
4 37 Graduate from a regular four-year college
5 11 Study for advanced college degrees

# APPENDIX C

For a number of concepts employed in the present thesis, more than one operational measure was developed. Because of the high interrelationship between each of the operational definitions developed to measure each concept, one was selected to be employed in the present analysis. This appendix contains the operational definitions not used in the present thesis. Appendix E contains tables showing the interrelationships between these operational measures and the specific measures employed in this analysis.

## SCHOOL IDENTIFICATION SCORE

How important are the following groups to you? Please indicate whether each group is very important, fairly important, or not important to you.

(Check one for each statement)

| | (1) Very Important | (2) Fairly Important | (3) Not Important |
|---|---|---|---|
| Your high school | 52% | 43% | 5% |

How strongly do you agree or disagree with the following statements?

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| My classmates are glad to have me as a member of their school | 8 | 52 | 36 | 2 | 1 |
| I really feel like part of this school | 18 | 54 | 17 | 8 | 3 |

The distribution of respondents among scores, after collapsing as indicated is:

| Score | Percent of respondents with this score |
|---|---|
| 3 | 11.2% |
| 4 | 26.4 |
| 5 | 29.5 |
| 6 | 21.0 |
| 7 | 12.0 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 3-4 | 37.5% | -- positive (high) |
| 5 | 29.5 | -- neutral (medium) |
| 6-7 | 33.0 | -- negative (low) |

# ROSENBERG SELF-ESTEEM SCALE

For each of the following statements, check how strongly you agree or disagree.

| | (1) Strongly Agree | (2) Agree | (3) Un-Certain | (4) Dis-Agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| I feel that I have a number of good qualities | 8% | 61% | 27% | 4% | 0% |
| All in all, I am inclined to feel that I am a failure | 1 | 6 | 13 | 53 | 26 |
| At times I think I am no good at all | 6 | 40 | 19 | 26 | 9 |
| I feel that I'm a person of worth, at least on an equal plane with others | 15 | 64 | 15 | 4 | 1 |
| I feel I do not have much to be proud of | 3 | 12 | 13 | 46 | 25 |
| On the whole, I am satisfied with myself | 8 | 45 | 20 | 22 | 4 |
| I take a positive attitude toward myself | 8 | 45 | 34 | 12 | 2 |

Rosenberg Self-Esteem Scale (continued)

| | (1) Strongly Agree | (2) Agree | (3) Un-Certain | (4) Dis-Agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| I certainly feel useless at times | 7 | 46 | 18 | 24 | 5 |
| I am able to do things as well as most other people | 14 | 62 | 15 | 8 | 1 |
| I wish I could have more respect for myself | 10 | 32 | 25 | 27 | 7 |

The distribution of respondents among scores after collapsing the above categories is:

| Score | Percent of respondents with this score | Score | Percent of respondents with this score |
|---|---|---|---|
| 10 | 1.0 | 20 | 8.7 |
| 11 | 1.3 | 21 | 8.7 |
| 12 | 2.4 | 22 | 7.9 |
| 13 | 3.2 | 23 | 5.7 |
| 14 | 5.6 | 24 | 5.4 |
| 15 | 5.9 | 25 | 3.9 |
| 16 | 7.9 | 26 | 2.8 |
| 17 | 8.7 | 27 | 1.7 |
| 18 | 9.0 | 28 | .9 |
| 19 | 9.2 | 29 | .3 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | | |
|---|---|---|
| 10-17 | 35.8% | Positive Self-Esteem |
| 18-21 | 35.6 | Medium Self-Esteem |
| 22-29 | 28.6 | Negative Self-Esteem |

Dichotomizing the original items, they form a Guttman Scale with a coefficient of reproducibility =.89.

## MIRROR-IMAGE SCORE

Now we would like to know how you think your teachers see you. How do you think they would describe you to someone else. Put yourself in their place and make believe they are filling out this form as it applied to you.

My teachers would say this term describes me . . .

(Check one for each item)

| | (1) Very Well | (2) Fairly Well | (3) A Little | (4) Not at All Well | (5) Don't Know |
|---|---|---|---|---|---|
| Ambitious | 13% | 52% | 28% | 5% | 3% |
| Cooperative | 29 | 54 | 12 | 2 | 2 |
| Polite and courteous | 32 | 55 | 11 | 1 | 2 |
| Well behaved | 27 | 55 | 14 | 2 | 1 |
| Hard working | 16 | 53 | 26 | 4 | 2 |
| Eager to learn | 24 | 49 | 22 | 4 | 2 |
| Cheerful | 35 | 48 | 13 | 2 | 2 |
| Messy | 3 | 5 | 33 | 51 | 8 |
| Rude | 2 | 5 | 21 | 62 | 10 |
| Dependable | 26 | 56 | 13 | 2 | 4 |

The distribution of respondents among scores after collapsing the above categories as indicated is:

| Score | Percent of total respondents with this score |
|---|---|
| 10 | .1 |
| 11 | 0 |
| 12 | .3 |
| 13 | .2 |

| Score | Percent of total respondents with this score |
|---|---|
| 14 | 1.9 |
| 15 | .5 |
| 16 | 1.9 |
| + 17 | .6 |
| 18 | 3.1 |
| 19 | .9 |
| 20 | 5.1 |
| 21 | 1.3 |
| 22 | 6.6 |
| 23 | 1.6 |
| 24 | 7.9 |
| 25 | 1.6 |
| 26 | 10.1 |
| 27 | 2.3 |
| 28 | 15.2 |
| 29 | 2.7 |
| 30 | 36.2 |

On the basis of the marginals of the above range of scores, the scores were collapsed to form the following categories:

| Range | |
|---|---|
| 10-24 | 36.2% - Positive Mirror-Image |
| 25-29 | 31.9% - Neutral |
| 30 | 31.9% - Negative |

By dichotomizing the original items, they form a Guttman scale with a coefficient of reproducibility of .89.

# APPENDIX D

This Appendix contains major tables discussed in the text of this thesis. Each table is numbered in the following way: the first number refers to the chapter number in which the table is discussed. The following number(s) refers to the sequence in a given chapter in which the table is discussed.

## Table 2.1

## NAME, LOCATION AND SIZE OF SCHOOLS IN THE SAMPLE

| School | Location | Number of Students |
|---|---|---|
| 1. Beaver Falls Junior High School | Small industrial city | 740 |
| 2. Ross Junior High School | Suburban | 747 |
| 3. North Hills High School | Suburban | 1449 |
| 4. Wood St. High School | "Mill Town" | 414 |
| 5. Har-Brack High School | "Mill Town" | 949 |
| 6. Hurst Junior High School | Semi-rural | 490 |
| 7. Mt. Pleasant High School | Semi-rural | 843 |
|  | Total Sample Size | 5632 |

## Table 2.2

### THE RELATIONSHIP BETWEEN AGE AND GRADE IN SCHOOL AND THE DISTRIBUTION OF EACH IN THE SAMPLE*

| Grade | Age<br>11 yrs. | 12 yrs. | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 yrs. | 19 yrs. | Grade Distribution Total % |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 88.2% | 85.7% | 11.0% | 01.1% | 00.2% | 00.0% | 00.0% | 00.0% | 00.0% | 13% |
| 8 | 06.4 | 13.7 | 76.3 | 12.3 | 01.7 | 00.2 | 00.0 | 00.8 | 00.0 | 14 |
| 9 | 02.7 | 00.5 | 12.1 | 78.0 | 10.3 | 01.5 | 00.2 | 00.8 | 05.0 | 16 |
| 10 | 00.9 | 00.0 | 00.3 | 08.5 | 81.9 | 11.8 | 02.2 | 00.8 | 05.0 | 20 |
| 11 | 00.9 | 00.2 | 00.1 | 00.1 | 05.8 | 79.7 | 09.6 | 12.5 | 15.0 | 19 |
| 12 | 00.9 | 00.0 | 00.1 | 00.0 | 00.2 | 06.8 | 88.0 | 85.0 | 75.0 | 19 |
|  | (110) | (607) | (726) | (872) | (1091) | (1111) | (967) | (120) | (20) |  |
| Age Distribution Total % | 2.0% | 11.0% | 13.0% | 16.0% | 19.0% | 20.0% | 17.0% | 2.0% | 0.0% | 100.0% |

**$X^2$ = 17452.0 df = 40.0 R = 436.3

*See Appendix B, pp. 181-182 for the questions used to measure the variables of age and grade.

All percentages are based upon the number of students responding to the questions involved. Percentages may not total to exactly 100% because of rounding error. Raw figures appear in parentheses and may vary from table to table depending upon the number of responses.

**All tables are significant at or beyond the .001 level unless otherwise indicated.

## Table 2.3

## THE RELATIONSHIP BETWEEN SEX AND AGE*

| Age | Sex | |
|---|---|---|
| | Male | Female |
| 11 Yrs. | 1.9% | 1.8% |
| 12 Yrs. | 10.8 | 10.8 |
| 13 Yrs. | 12.6 | 13.2 |
| 14 Yrs. | 14.7 | 16.3 |
| 15 Yrs. | 20.3 | 18.6 |
| 16 Yrs. | 20.0 | 19.6 |
| 17 Yrs. | 16.4 | 18.1 |
| 18 Yrs. | 2.9 | 1.3 |
| 19 Yrs. | 0.5 | 0.2 |
| | (2854) | (2765) |
| % Distribution Of Sexes | 51.0% | 49.0% |

**$X^2$ = 8** df = 8 R = 1

*See Appendix B, p. 183 for the questions used to measure the variables of sex and age.

**This relationship is not significant at the .001 level.

Table 2.4

THE RELATIONSHIP BETWEEN AGE AND COURSE OF STUDY*

| Course | Age | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 11** yrs. | 12 yrs. | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 yrs. | 19** yrs. | Course Distribution Total % |
| College Preparatory | 48.5% | 42.9% | 42.7% | 44.8% | 62.4% | 58.1% | 56.5% | 22.7% | 27.8% | 52% |
| General | 23.7 | 31.6 | 29.8 | 23.6 | 13.7 | 15.2 | 16.9 | 57.3 | 50.0 | 21 |
| Vocational | 06.2 | 06.7 | 08.0 | 09.2 | 05.0 | 04.7 | 05.7 | 04.5 | 16.7 | 6 |
| Commercial | 17.5 | 13.6 | 16.2 | 20.3 | 17.7 | 21.2 | 18.5 | 10.0 | 05.6 | 18 |
| Other | 04.1 | 05.3 | 03.2 | 02.1 | 01.2 | 00.9 | 02.4 | 05.5 | 00.0 | 2 |
| | (97) | (567) | (677) | (793) | (1013) | (1040) | (892) | (110) | (18) | 100% |

$X^2 = 351.6$ df = 32 R = 11

*See Appendix B, pp. 181-182 for the questions used to measure the variables age and course of study.

**The figures presented for the two extreme age categories should be interpreted with caution because of the small number of cases involved.

## Table 2.5

## THE RELATIONSHIP BETWEEN SEX AND COURSE OF STUDY*

| Course | Sex | |
|---|---|---|
| | Male | Female |
| College Preparatory | 56.4% | 47.3% |
| General | 26.2 | 16.3 |
| Vocational | 08.2 | 04.5 |
| Commercial | 06.5 | 30.1 |
| Other | 02.7 | 01.9 |
| | (2628) | (2559) |

$X^2$ = 510.0 df = 4 R = 128

*The questions used to measure sex, grade and course of study appear in Appendix B, pp. 181-182.

## Table 2.6

## THE RELATIONSHIP BETWEEN SEX AND GRADE IN SCHOOL*

| Grade | Sex | |
|---|---|---|
| | Male | Female |
| 7 | 13.1% | 12.1% |
| 8 | 13.3 | 14.1 |
| 9 | 16.3 | 15.9 |
| 10 | 20.6 | 19.4 |
| 11 | 19.0 | 18.9 |
| 12 | 17.7 | 19.6 |
| | (2853) | (2761) |

* * $X^2 = 7$ df = 6 R = 1

*The questions used to measure sex, grade and course of study appear in Appendix B, pp. 181-182.

**This relationship is not significant at the .001 level.

## Table 2.7

## THE RELATIONSHIP BETWEEN GRADE IN SCHOOL AND COURSE OF STUDY*

| Course | Grade | | | | | |
|---|---|---|---|---|---|---|
| | 7 | 8 | 9 | 10 | 11 | 12 |
| College Preparatory | 43.3% | 38.7% | 42.3% | 64.4% | 58.6% | 55.9% |
| General | 30.0 | 33.8 | 25.6 | 13.0 | 15.5 | 17.5 |
| Vocational | 07.4 | 07.0 | 10.8 | 03.8 | 04.8 | 05.5 |
| Commercial | 13.1 | 16.9 | 19.5 | 18.3 | 20.3 | 18.4 |
| Other | 06.3 | 03.6 | 01.8 | 00.5 | 00.8 | 02.7 |
| | (651) | (718) | (836) | (1023) | (1014) | (961) |

$X^2 = 125$     df = 20     R = 6

*The questions used to measure the variables of grade and course of study appear in Appendix B, p. 181.

## Table 3.1

## STUDENTS' EDUCATIONAL ASPIRATIONS*

| | |
|---|---|
| Graduate from College or More | 60.4% |
| Attend Junior College, Business School or Obtain Vocational Training | 23.2 |
| Graduate from High School or Less | 16.3 |

*See Appendix B, p. 198 for the questions used to measure students' educational aspirations.

## Table 3.2

## STUDENTS' EDUCATIONAL EXPECTATIONS*

| | |
|---|---|
| Graduate from College or More | 48.6% |
| Attend Junior College, Business School or Obtain Vocational Training | 25.5 |
| Graduate from High School or Less | 25.8 |

*See Appendix B, p. 199 for the question used to measure students' educational expectations.

Table 3.3

THE RELATIONSHIP BETWEEN STUDENTS' EDUCATIONAL ASPIRATIONS AND THEIR EDUCATIONAL EXPECTATIONS

| Educational Expectations | Educational Aspirations<br>College or More | <br>Junior College | <br>High School or Less |
|---|---|---|---|
| College or More | 78.3% | 2.5% | 4.1% |
| Junior College | 11.4 | 77.2 | 4.3 |
| High School or Less | 10.3 | 20.3 | 91.5 |
| | (3354) | (1291) | (898) |

$X^2 = 5138$  df = 4  R = 1284

### Table 3.4

### THE RELATIONSHIP BETWEEN SEX AND STUDENTS' EDUCATIONAL ASPIRATIONS

| Educational Aspirations | Sex | |
|---|---|---|
| | Male | Female |
| College or More | 68.6% | 52.1% |
| Junior College | 16.5 | 30.3 |
| High School or Less | 14.9 | 17.7 |
| | (2814) | (2739) |

$X^2$ = 183 df = 2 R = 92

### Table 3.4a

### THE RELATIONSHIP BETWEEN SEX AND STUDENTS' EDUCATIONAL EXPECTATIONS

| Educational Expectations | Sex | |
|---|---|---|
| | Male | Female |
| College or More | 54.7% | 42.5% |
| Junior College | 21.0 | 30.2 |
| High School or Less | 24.3 | 27.3 |
| | (2806) | (2730) |

$X^2$ = 93 df = 2 R = 46

## Table 3.5

## THE RELATIONSHIP BETWEEN AGE AND EDUCATIONAL ASPIRATIONS

| Educational Aspirations | Age | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 11 yrs. | 12 yrs. | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 yrs. | 19 yrs. |
| College or More | 67.6% | 68.2% | 63.7% | 59.6% | 63.9% | 57.9% | 56.3% | 30.0% | 45.0% |
| Junior College | 9.9 | 13.1 | 16.9 | 21.6 | 23.6 | 25.6 | 31.9 | 42.5 | 15.0 |
| High School or Less | 22.5 | 18.7 | 19.3 | 18.8 | 12.6 | 16.5 | 11.8 | 27.5 | 40.0 |
| | (111) | (594) | (714) | (861) | (1082) | (1098) | (963) | (120) | (20) |

$X^2 = 132$ df = 16 R = 8

## Table 3.5a

## THE RELATIONSHIP BETWEEN AGE AND EDUCATIONAL EXPECTATIONS

| Educational Expectations | Age | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 11 yrs. | 12 yrs. | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 yrs. | 19 yrs. |
| College or More | 57.3% | 60.6% | 52.1% | 47.7% | 50.3% | 46.6% | 43.8% | 16.0% | 21.1% |
| Junior College | 14.5 | 15.1 | 19.2 | 22.8 | 27.6 | 28.4 | 33.9 | 31.9 | 21.1 |
| High School or Less | 28.2 | 24.3 | 28.7 | 29.5 | 22.1 | 25.0 | 22.3 | 52.1 | 57.9 |
| | (110) | (589) | (712) | (857) | (1079) | (1097) | (964) | (119) | (19) |

$X^2 = 170$ df = 16 R = 10

## Table 3.6

## THE RELATIONSHIP BETWEEN GRADE LEVEL IN SCHOOL AND STUDENTS' EDUCATIONAL ASPIRATIONS

| Educational Aspirations | Grade Level | |
|---|---|---|
| | Junior High School | Senior High School |
| College or More | 62.2% | 59.2% |
| Junior College | 17.1 | 27.6 |
| High School or Less | 20.6 | 13.2 |
| | (2351) | (3207) |

$X^2$ = 56 df = 2 R = 28

## Table 3.6a

## THE RELATIONSHIP BETWEEN GRADE LEVEL IN SCHOOL AND STUDENTS' EDUCATIONAL EXPECTATIONS

| Educational Expectations | Grade Level | |
|---|---|---|
| | Junior High School | Senior High School |
| College or More | 51.7% | 46.4% |
| Junior College | 18.8 | 30.4 |
| High School or Less | 29.4 | 23.2 |
| | (2336) | (3205) |

$X^2$ = 66 df = 2 R = 30

## Table 3.7

## THE RELATIONSHIP BETWEEN COURSE OF STUDY AND EDUCATIONAL ASPIRATIONS

| Educational Aspirations | Course of Study | | | | |
|---|---|---|---|---|---|
| | College Preparatory | General | Vocational | Commercial | Other |
| College or More | 85.9% | 38.8% | 36.0% | 26.9% | 39.2% |
| Junior College | 10.6 | 26.2 | 40.3 | 48.7 | 30.8 |
| High School or Less | 3.5 | 35.0 | 23.7 | 24.4 | 30.0 |
| | (2675) | (1099) | (325) | (930) | (120) |

$X^2 = 334$ df = 8 R = 42

## Table 3.7a

## THE RELATIONSHIP BETWEEN COURSE OF STUDY AND EDUCATIONAL EXPECTATIONS

| Educational Expectations | Course of Study | | | | |
|---|---|---|---|---|---|
| | College Preparatory | General | Vocational | Commercial | Other |
| College or More | 75.9% | 25.2% | 21.0% | 12.4% | 26.3% |
| Junior College | 15.5 | 24.2 | 47.8 | 47.2 | 30.5 |
| High School or Less | 8.7 | 50.7 | 31.2 | 40.4 | 43.2 |
| | (2671) | (1093) | (324) | (928) | (118) |

$X^2 = 338$ df = 8 R = 43

Table 3.8

## THE RELATIONSHIP BETWEEN COURSE OF STUDY AND EDUCATIONAL ASPIRATIONS

| Educational Aspirations | Course | |
|---|---|---|
| | College Preparatory | Other |
| College or More | 85.9% | 34.0% |
| Junior College | 10.6 | 36.7 |
| High School or Less | 3.5 | 29.3 |
| | (2675) | (2474) |

$X^2 = 100$  df = 2  R = 50

Table 3.8a

## THE RELATIONSHIP BETWEEN COURSE OF STUDY AND EDUCATIONAL EXPECTATIONS

| Educational Expectations | Course | |
|---|---|---|
| | College Preparatory | Other |
| College or More | 75.8% | 19.8% |
| Junior College | 15.5 | 36.2 |
| High School or Less | 8.7 | 43.9 |
| | (2671) | (2463) |

$X^2 = 106$  df = 2  R = 53

## Table 3.9

## THE RELATIONSHIP BETWEEN STUDENTS' SOCIOECONOMIC STATUS AND THEIR EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Socioeconomic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| College or More | 89.5% | 77.7% | 66.5% | 53.9% | 42.9% |
| Junior College | 6.9 | 14.8 | 23.0 | 26.8 | 30.6 |
| High School or Less | 3.7 | 7.5 | 10.4 | 19.3 | 26.5 |
| | (465) | (959) | (1024) | (1723) | (1338) |

$X^2 = 532$ df = 8 R = 66

## Table 3.9a

## THE RELATIONSHIP BETWEEN STUDENTS' SOCIOECONOMIC STATUS AND THEIR EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Socioeconomic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| College or More | 83.0% | 70.0% | 54.6% | 39.9% | 29.2% |
| Junior College | 9.3 | 18.7 | 27.9 | 30.0 | 28.8 |
| High School or Less | 7.8 | 11.4 | 17.5 | 30.1 | 41.9 |
| | (464) | (959) | (1024) | (1711) | (1335) |

$X^2 = 740$ df = 8 R = 93

*See Appendix B, pp. 183-187 for the index of Socioeconomic Status.

## Table 3.10

### THE RELATIONSHIP BETWEEN STUDENTS' POVERTY AWARENESS AND THEIR EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Fairly well-off | Not too well-off | Not well-off |
| College or More | 73.9% | 62.3% | 55.0% | 46.8% |
| Junior College | 14.8 | 24.0 | 27.5 | 28.1 |
| High School or Less | 11.3 | 13.7 | 17.5 | 25.1 |
| | (1438) | (1523) | (1583) | (940) |

$X^2 = 222$ df = 6 R = 37

## Table 3.10a

### THE RELATIONSHIP BETWEEN STUDENTS' POVERTY AWARENESS AND THEIR EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Fairly well-off | Not too well-off | Not well-off |
| College or More | 66.1% | 51.2% | 41.1% | 31.1% |
| Junior College | 19.1 | 26.9 | 29.5 | 26.7 |
| High School or Less | 14.8 | 21.9 | 29.4 | 42.3 |
| | (1434) | (1519) | (1579) | (937) |

$X^2 = 388$ df = 6 R = 65

*See Appendix B, pp. 188-189 for the items used to construct the score of Poverty Awareness.

## Table 3.11

## THE RELATIONSHIP BETWEEN PARENTAL PRESSURE AND STUDENTS' EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Parental Pressure | | |
|---|---|---|---|
| | College or More | Junior College or Less | Don't Know |
| College or More | 88.4% | 20.3% | 34.9% |
| Junior College | 6.9 | 52.1 | 26.5 |
| High School or Less | 4.7 | 27.6 | 38.7 |
| | (3112) | (1676) | (771) |

$X^2$ = 2517  df = 4  R = 629

## Table 3.11a

## THE RELATIONSHIP BETWEEN PARENTAL PRESSURE AND STUDENTS' EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Parental Pressure | | |
|---|---|---|---|
| | College or More | Junior College or Less | Don't Know |
| College or More | 77.9% | 7.5% | 19.5% |
| Junior College | 12.0 | 52.3 | 22.5 |
| High School or Less | 10.1 | 40.2 | 58.0 |
| | (3105) | (1672) | (764) |

$X^2$ = 2694  df = 4  R = 674

*See Appendix B, p. 190 for the item used to measure Parental Pressure.

## Table 3.12

## THE RELATIONSHIP BETWEEN PEER INFLUENCES AND STUDENTS' EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Peer Influences | |
|---|---|---|
| | College or Junior College | Other |
| College or More | 79.2% | 42.0% |
| Junior College | 16.0 | 30.4 |
| High School or Less | 4.8 | 27.6 |
| | (2745) | (2789) |

$X^2$ = 882 df = 2 R = 441

## Table 3.12a

## THE RELATIONSHIP BETWEEN PEER INFLUENCES AND STUDENTS' EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Peer Influences | |
|---|---|---|
| | College or Junior College | Other |
| College or More | 69.8% | 27.8% |
| Junior College | 20.2 | 30.7 |
| High School or Less | 10.0 | 41.5 |
| | (2741) | (2776) |

$X^2$ = 1090 df = 2 R = 545

*See Appendix B, p. 191 for the item used to measure Peer Influence.

## Table 4.1

### THE RELATIONSHIP BETWEEN SOCIETAL EVALUATION AND EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Societal Evaluation | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 71.8% | 59.9% | 48.5% |
| Junior College | 20.6 | 23.4 | 26.2 |
| High School or Less | 7.6 | 16.7 | 25.4 |
| | (1891) | (1965) | (1663) |
| | $X^2$ = 264: | df = 4: | R = 66 |

## Table 4.1a

### THE RELATIONSHIP BETWEEN SOCIETAL EVALUATION AND EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Societal Evaluation | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 60.8% | 47.5% | 36.6% |
| Junior College | 23.3 | 26.6 | 27.2 |
| High School or Less | 15.9 | 25.9 | 36.1 |
| | (1885) | (1958) | (1659) |
| | $X^2$ = 254: | df = 4: | R = 63 |

*See Appendix B, pp. 192-193, for the operational measure of Societal Evaluation.

Table 4.2

THE RELATIONSHIP BETWEEN SCHOOL EVALUATION AND EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | School Evaluation | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 70.0% | 59.7% | 52.9% |
| Junior College | 21.3 | 24.7 | 23.3 |
| High School or Less | 8.7 | 15.5 | 23.8 |
| | (1635) | (2059) | (1839) |
| | $X^2$ = 170: | df = 4: | R = 42 |

Table 4.2a

THE RELATIONSHIP BETWEEN SCHOOL EVALUATION AND EDUCATIONAL EXPECTATIONS*

| Educational Expectations | School Evaluation | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 58.9% | 47.8% | 40.6% |
| Junior College | 22.8 | 26.4 | 27.0 |
| High School or Less | 18.3 | 25.7 | 32.4 |
| | (1630) | (2056) | (1830) |
| | $X^2$ = 134: | df = 4: | R = 33 |

*See Appendix B, pp. 194-195, for the operational measure of School Evaluation.

## Table 4.3

## THE RELATIONSHIP BETWEEN SELF-IMAGE AND EDUCATIONAL ASPIRATIONS*

| Educational Aspirations | Self-Image | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 69.5% | 59.9% | 50.2% |
| Junior College | 22.4 | 24.9 | 21.8 |
| High School or Less | 8.1 | 15.1 | 27.9 |
| | (1841) | (2181) | (1515) |
| | $X^2$ = 259: | df = 4: | R = 65 |

## Table 4.3a

## THE RELATIONSHIP BETWEEN SELF-IMAGE AND EDUCATIONAL EXPECTATIONS*

| Educational Expectations | Self-Image | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| College or More | 59.4% | 48.6% | 35.8% |
| Junior College | 24.2 | 27.7 | 24.2 |
| High School or Less | 16.4 | 23.7 | 40.1 |
| | (1836) | (2177) | (1507) |
| | $X^2$ = 134: | df = 4: | R = 72 |

*See Appendix B, pp. 196-197, for the items used to measure Self-image; and, Appendix E, pp. for the relationship of self-image to self-esteem and mirror-image.

## Table 5.1

### THE RELATIONSHIP BETWEEN PARENTAL PRESSURE FOR COLLEGE AND STUDENTS' ASPIRATIONS FOR COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | % With College Aspirations |
|---|---|
| Male | |
| Junior High School | 88.8% (774)<br>$X^2$=425: df=4: R=106 |
| Senior High School | 90.2 (1027)<br>$X^2$=644: df=4: R=161 |
| Female | |
| Junior High School | 85.5 (581)<br>$X^2$=528: df=4: R=132 |
| Senior High School | 87.7 (723)<br>$X^2$=810: df=4: R=202 |

*The operational measure of Parental Pressure appears in Appendix B, p. 190.

## Table 5.1a

### THE RELATIONSHIP BETWEEN PARENT PRESSURE FOR COLLEGE AND STUDENTS' EDUCATIONAL EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | % With College Expectations |
|---|---|
| **Male** | |
| Junior High School | 76.7% (774)<br>$X^2$=383: df=4: R=96 |
| Senior High School | 77.5 (1027)<br>$X^2$=724: df=4: R=181 |
| **Female** | |
| Junior High School | 77.7 (574)<br>$X^2$=544: df=4: R=136 |
| Senior High School | 79.8 (723)<br>$X^2$=983: df=4: R=246 |

*The operational measure of Parental Pressure appears in Appendix B, p. 190.

## Table 5.2

## THE RELATIONSHIP BETWEEN PARENTAL PRESSURE FOR COLLEGE AND STUDENTS' EDUCATIONAL ASPIRATIONS FOR COLLEGE OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| Grade and Course | % With College Aspirations |
|---|---|
| Junior High School | |
| College Preparatory | 95.8% (720) |
| | $X^2$=314: df=4: R=78 |
| Other | 76.4 (546) |
| | $X^2$=418: df=4: R=104 |
| Senior High School | |
| College Preparatory | 95.3 (1411) |
| | $X^2$=571: df=4: R=143 |
| Other | 51.9 (214) |
| | $X^2$=171: df=4: R=43 |

*The operational measure of Parental Pressure appears in Appendix B, p. 190.

## Table 5.2a

### THE RELATIONSHIP BETWEEN PARENTAL PRESSURE FOR COLLEGE AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR LESS, BY GRADE LEVEL AND COURSE OF STUDY*

| Grade and Course | % With College Aspirations |
|---|---|
| Junior High School | |
| College Preparatory | 85.9% (717)<br>$X^2$=266: df=4: R=66 |
| Other | 60.8 (543)<br>$X^2$=416: df=4: R=104 |
| Senior High School | |
| College Preparatory | 85.8 (1412)<br>$X^2$=631: df=4: R=158 |
| Other | 33.2 (774)<br>$X^2$=317: df=4: R=79 |

*The operational measure of Parental Pressure appears in Appendix B, p.190.

## Table 5.3

## THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' ASPIRATIONS FOR COLLEGE OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| Sex and Grade | Upper Class I | II | III | IV | Lower Class V |
|---|---|---|---|---|---|
| | % With College Aspirations | | | | |
| Male | | | | | |
| Junior High School | 92.0% (113) | 87.6% (178) | 77.5% (200) | 64.0% (384) | 52.2% (297) |
| | $X^2$=115: df=8: R=14 | | | | |
| Senior High School | 97.4 (115) | 85.1 (302) | 72.6 (347) | 61.3 (486) | 51.0 (313) |
| | $X^2$=157: df=8: R=20 | | | | |
| Female | | | | | |
| Junior High School | 86.7 (90) | 69.4 (180) | 65.2 (181) | 49.3 (369) | 39.9 (313) |
| | $X^2$=95: df=98: R=12 | | | | |
| Senior High School | 83.0 (147) | 69.2 (299) | 52.6 (293) | 41.5 (468) | 30.1 (369) |
| | $X^2$=192: df=8: R=24 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187.

## Table 5.3a

## THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| Sex and Grade | I | II | III | IV | V |
| | % With College Expectations | | | | |
| Male | | | | | |
| Junior High School | 83.2% (113) | 79.2% (178) | 63.5% (200) | 50.1% (391) | 38.4% (294) |
| | $X^2=146$: df=8: R=18 | | | | |
| Senior High School | 89.6 (115) | 76.2 (302) | 58.6 (348) | 42.4 (483) | 32.5 (357) |
| | $X^2=230$: df=8: R=29 | | | | |
| Female | | | | | |
| Junior High School | 80.9 (89) | 66.9 (181) | 57.0 (179) | 39.1 (363) | 28.8 (313) |
| | $X^2=139$: df=8: R=17 | | | | |
| Senior High School | 78.9 (147) | 60.1 (298) | 42.2 (294) | 28.8 (468) | 19.0 (369) |
| | $X^2=260$: df=8: R=32 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187.

Table 5.4

THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' ASPIRATIONS FOR A COLLEGE EDUCATION OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| Grade and Course | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| | | | % With College Aspirations | | |
| Junior High School | | | | | |
| College Preparatory | 95.4% (131) | 90.3% (175) | 88.9% (162) | 84.8% (264) | 76.1% (163) |
| | $X^2$=29: df=8: R=4 | | | | |
| Other | 82.5 (57) | 65.4 (159) | 60.6 (188) | 39.9 (439) | 33.6 (405) |
| | $X^2$=108: df=8: R=14 | | | | |
| Senior High School | | | | | |
| College Preparatory | 96.3 (219) | 91.5 (426) | 87.0 (384) | 79.7 (464) | 75.6 (271) |
| | $X^2$ =70: df=8: R=9 | | | | |
| Other | 32.0 (25) | 34.6 (130) | 22.0 (209) | 22.3 (431) | 16.5 (389) |
| | $X^2$=34: df=8: R=4 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187.

Table 5.4a

THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION BY GRADE LEVEL AND COURSE OF STUDY*

| Grade and Course | Socio-Economic Status<br>Upper Class I | II | III | IV | Lower Class V |
|---|---|---|---|---|---|
| | % With College Expectations | | | | |
| Junior High School | | | | | |
| College Preparatory | 93.1% (130) | 86.9% (175) | 83.2% (161) | 74.7% (261) | 68.1% (163) |
| | $X^2$=45: df=8: R=6 | | | | |
| Other | 64.9 (57) | 56.0 (159) | 43.9 (187) | 26.0 (434) | 19.9 (402) |
| | $X^2$=133: df=8: R=17 | | | | |
| Senior High School | | | | | |
| College Preparatory | 90.9 (219) | 84.7 (426) | 76.6 (385) | 62.5 (464) | 56.8 (271) |
| | $X^2$=137: df=8: R=17 | | | | |
| Other | 28.0 (25) | 16.9 (130) | 7.1 (210) | 6.8 (428) | 3.1 (389) |
| | $X^2$=68: df=8: R=8 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187.

Table 5.5

THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' ASPIRATIONS FOR A COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| Sex and Grade | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | % With College Aspirations | | | |
| Male | | | | |
| Junior High School | 76.7% (335) | 73.6% (333) | 68.2% (305) | 51.7% (201) |
| | $X^2$=43: df=6: R=7 | | | |
| Senior High School | 81.9 (398) | 72.0 (396) | 62.1 (501) | 57.1 (303) |
| | $X^2$=66: df=6: R=11 | | | |
| Female | | | | |
| Junior High School | 66.5 (313) | 59.1 (337) | 47.6 (307) | 41.5 (164) |
| | $X^2$=52: df=6: R=9 | | | |
| Senior High School | 69.7 (390) | 48.3 (453) | 43.3 (466) | 34.8 (270) |
| | $X^2$=104: df=6: R=17 | | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189.

Table 5.5a

## THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| Sex and Grade | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | % With College Expectations | | | |
| Male | | | | |
| Junior High School | 70.6% (333) | 60.2% (332) | 51.6% (304) | 36.0% (200) |
| | $X^2$=77: df=6: R=13 | | | |
| Senior High School | 71.1 (398) | 57.3 (396) | 44.4 (502) | 38.7 (300) |
| | $X^2$=104: df=6: R=17 | | | |
| Female | | | | |
| Junior High School | 60.8 (311) | 50.3 (334) | 38.3 (303) | 29.1 (165) |
| | $X^2$=79: df=6: R=13 | | | |
| Senior High School | 61.5 (390) | 40.2 (453) | 32.0 (466) | 20.0 (270) |
| | $X^2$=154: df=6: R=26 | | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189.

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Table 5.6

THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' EXPECTATIONS OR OBTAINING A COLLEGE EDUCATION OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| Grade and Course | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | | % With College Aspirations | | |
| Junior High School | | | | |
| College Preparatory | 90.7% (313) | 84.6% (273) | 85.9% (198) | 80.6% (103) |
| | $X^2$=13: df=6: | R=2 | | |
| Other | 51.2 (295) | 52.3 (352) | 42.7 (368) | 33.5 (230) |
| | $X^2$=30: df=6: | R=5 | | |
| Senior High School | | | | |
| College Preparatory | 92.6 (537) | 84.4 (481) | 82.4 (483) | 80.2 (252) |
| | $X^2$=30: df=6: | R=5 | | |
| Other | 32.3 (186) | 21.6 (310) | 20.8 (423) | 15.8 (273) |
| | $X^2$=26: df=6: | R=4 | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189.

Table 5.6a

THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| Grade and Course | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | | % With College Expectations | | |
| Junior High School | | | | |
| College Preparatory | 85.8% (310) | 77.6% (272) | 78.7% (197) | 71.2% (104) |
| | $X^2$=20: df=6: | R=3 | | |
| Other | 44.9 (294) | 38.1 (349) | 26.0 (365) | 15.8 (228) |
| | $X^2$=84: df=6: | R=14 | | |
| Senior High School | | | | |
| College Preparatory | 84.7 (537) | 75.7 (481) | 67.8 (485) | 57.8 (251) |
| | $X^2$=81: df=6: | R=13 | | |
| Other | 16.7 (192) | 6.5 (308) | 6.1 (420) | 3.0 (268) |
| | $X^2$=55: df=6: | R=9 | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189.

## Table 5.7

## THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' ASPIRATIONS FOR COLLEGE OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Aspirations | |
| Male | | |
| Junior High School | 85.7% (441) | 59.2% (745) |
| | $X^2 = 99$: df = 2: R = 50 | |
| Senior High School | 87.4 (902) | 43.9 (702) |
| | $X^2 = 352$: df = 2: R = 176 | |
| Female | | |
| Junior High School | 73.5 (506) | 40.6 (638) |
| | $X^2 = 146$: df = 2: R = 73 | |
| Senior High School | 71.0 (891) | 22.8 (696) |
| | $X^2 = 400$: df = 2: R = 200 | |

*The operational measure of Peer Influence appears in Appendix B, p. 191.

Table 5.7a

THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY SEX AND GRADE LEVEL IN SCHOOL*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Expectations | |
| Male | | |
| Junior High School | 77.5% (445) | 44.2% (740) |
| | $X^2 = 139$: df = 2: R = 70 | |
| Senior High School | 75.5 (901) | 24.7 (701) |
| | $X^2 = 426$: df = 2: R = 213 | |
| Female | | |
| Junior High School | 67.7 (505) | 29.7 (630) |
| | $X^2 = 187$: df = 2: R = 98 | |
| Senior High School | 61.3 (890) | 11.9 (697) |
| | $X^2 = 444$: df = 2: R = 222 | |

*The operational measure of Peer Influence appears in Appendix B, p. 191.

## Table 5.8

### THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' ASPIRATIONS FOR OBTAINING A COLLEGE EDUCATION OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Aspirations | |
| Grade and Course | | |
| Junior High School | | |
| College Preparatory | 91.8% (497) | 80.3% (396) |
| | $X^2 = 32$: df = 2: R = 16 | |
| Other | 62.8 (390) | 38.0 (869) |
| | $X^2 = 88$: df = 2: R = 44 | |
| Senior High School | | |
| College Preparatory | 91.3 (1316) | 69.4 (445) |
| | $X^2 = 132$: df = 2: R = 61 | |
| Other | 34.7 (352) | 16.0 (843) |
| | $X^2 = 86$: df = 2: R = 43 | |

*The operational measure of Peer Influence appears in Appendix B, p. 191.

## Table 5.8a

## THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY GRADE LEVEL AND COURSE OF STUDY*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Expectations | |
| Grade and Course | | |
| Junior High School | | |
| College Preparatory | 88.5% (497) | 69.6% (391) |
| | $X^2$ = 59: df = 2: R = 30 | |
| Other | 51.3 (388) | 23.3 (862) |
| | $X^2$ = 123: df = 2: R = 62 | |
| Senior High School | | |
| College Preparatory | 82.4 (1316) | 48.4 (446) |
| | $X^2$ = 209: df = 2: R = 104 | |
| Other | 17.1 (351) | 3.0 (842) |
| | $X^2$ = 109: df = 2: R = 54 | |

*The operational measure of Peer Influence appears in Appendix B, p. 191.

## Table 5.9

## SUMMARY TABLE OF THE RELATIONSHIP BETWEEN PARENTAL PRESSURE AND STUDENTS' ASPIRATIONS FOR COLLEGE BY PERSONAL EVALUATIONS*

| | Parental Pressure | |
|---|---|---|
| | College or More | Junior College or Less |
| | % With College Aspirations | |
| Personal Evaluations | | |
| Societal Evaluation | | |
| Positive | 92.7% (1248) | 24.3% (449) |
| | $X^2 = 843$: df = 4: R = 211 | |
| Medium | 88.6 (1071) | 21.1 (627) |
| | $X^2 = 862$: df = 4: R = 215 | |
| Negative | 81.2 (771) | 16.4 (585) |
| | $X^2 = 725$: df = 4: R = 181 | |

*The operational measure of Parental Pressure appears in Appendix B, p. 190.
The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.9 (Continued)*

|  | Parental Pressure |  |
|---|---|---|
|  | College or More | Junior College or Less |
| **Personal Evaluations** | % With College Aspirations |  |
| School Evaluation |  |  |
| Positive | 82.0% (915) | 54.7% (709) |
|  | $X^2 = 166$: df = 2: R = 83 |  |
| Medium | 78.6 (999) | 41.7 (1046) |
|  | $X^2 = 315$: df = 2: R = 157 |  |
| Negative | 76.9 (823) | 33.1 (1006) |
|  | $X^2 = 370$: df = 2: R = 185 |  |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.9 (Continued)*

| | Parental Pressure | |
|---|---|---|
| | College or More | Junior College or Less |
| | % With College Aspirations | |
| Personal Evaluations | | |
| Self-Evaluation | | |
| Positive | 93.1% (1170) | 24.9% (481) |
| | $X^2 = 935$: df = 4: R = 234 | |
| Medium | 87.3 (1216) | 20.1 (656) |
| | $X^2 = 957$: df = 4: R = 239 | |
| Negative | 82.6 (714) | 16.1 (528) |
| | $X^2 = 606$: df = 4: R = 151 | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

## Table 5.9a

### SUMMARY TABLE OF THE RELATIONSHIP BETWEEN PARENTAL PRESSURE FOR COLLEGE AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION, BY PERSONAL EVALUATIONS*

| | Parental Pressure | |
|---|---|---|
| | College or More | Junior College or Less |
| | % With College Expectations | |
| Personal Evaluations | | |
| Societal Evaluation | | |
| Positive | 84.9% (1246) | 8.3% (446) |
| | $X^2 = 976$: df = 4: R = 243 | |
| Medium | 77.1 (1068) | 8.0 (626) |
| | $X^2 = 912$: df = 4: R = 228 | |
| Positive | 68.4 (769) | 6.7 (585) |
| | $X^2 = 713$: df = 4: R = 178 | |

*The operational measure of Parental Pressure appears in Appendix B, p. 190.
The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.9a (Continued)*

|  | Parental Pressure |  |
|---|---|---|
|  | College or More | Junior College or Less |
|  | % With College Expectations |  |
| Personal Evaluations |  |  |
| School Evaluation |  |  |
| Positive | 74.9% (913) | 38.5% (706) |
|  | $X^2 = 256$: df = 2: R = 128 |  |
| Medium | 68.3 (998) | 28.3 (1044) |
|  | $X^2 = 362$: df = 2: R = 181 |  |
| Negative | 65.9 (822) | 19.6 (998) |
|  | $X^2 = 441$: df = 2: R = 220 |  |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.9a (Continued)*

| | Parental Pressure | |
|---|---|---|
| | College or More | Junior College or Less |
| | % With College Expectations | |
| Personal Evaluations | | |
| Self-Evaluation | | |
| Positive | 85.9% (1167) | 9.6% (481) |
| | $X^2$ = 1063: df = 4: R = 266 | |
| Medium | 77.7 (1214) | 6.9 (655) |
| | $X^2$ = 1049: df = 4 : R = 262 | |
| Negative | 65.3 (712) | 6.5 (525) |
| | $X^2$ = 556: df = 4: R = 139 | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

## Table 5.10

### SUMMARY TABLE OF THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' ASPIRATIONS FOR A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

| | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| | | | % With College Aspirations | | |
| Personal Evaluations | | | | | |
| Societal Evaluation | | | | | |
| Positive | 93.3% (225) | 85.9% (376) | 74.1% (382) | 64.4% (528) | 53.5% (372) |
| | $X^2$ = 168: df = 8: R = 21 | | | | |
| Medium | 87.2 (148) | 77.3 (322) | 63.5 (356) | 55.6 (635) | 43.6 (484) |
| | $X^2$ = 153: df = 8: R = 19 | | | | |
| Negative | 83.1 (89) | 66.5 (257) | 59.9 (274) | 41.6 (546) | 34.6 (468) |
| | $X^2$ = 160: df = 8: R = 20 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187. The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

## Table 5.10 (Continued)*

|  | Socio-Economic Status |  |  |  |  |
|---|---|---|---|---|---|
|  | Upper Class I | II | III | IV | Lower Class V |
|  | % With College Aspirations |  |  |  |  |
| Personal Evaluations |  |  |  |  |  |
| School Evaluation |  |  |  |  |  |
| Positive | 92.2% (128) | 85.5% (269) | 74.4% (289) | 65.6% (535) | 55.8% (403) |
|  | $X^2 = 110$: df = 8: R = 14 |  |  |  |  |
| Medium | 90. (169) | 77.5 (347) | 68.5 (384) | 51.8 (625) | 41.7 (515) |
|  | $X^2 = 218$: df = 8: R = 27 |  |  |  |  |
| Negative | 86.1 (166) | 71.8 (340) | 57.4 (345) | 45.2 (555) | 32.2 (407) |
|  | $X^2 = 247$: df = 8: R = 31 |  |  |  |  |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.10 (continued)*

| | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| | % With College Aspirations | | | | |
| **Personal Evaluations** | | | | | |
| Self-Evaluation | | | | | |
| Positive | 94.0% (166) | 84.6% (337) | 71.7% (360) | 63.8% (583) | 53.5% (387) |
| | $X^2 = 141$: df = 8: R = 16 | | | | |
| Medium | 90.6 (180) | 74.4 (386) | 68.9 (395) | 51.6 (669) | 43.3 (531) |
| | $X^2 = 201$: df = 8: R = 25 | | | | |
| Negative | 81.4 (118) | 73.4 (233) | 55.7 (264) | 44.8 (460) | 32.9 (413) |
| | $X^2 = 186$: df = 8: R = 23 | | | | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

## Table 5.10a

### SUMMARY TABLE OF THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

| | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| | % With College Expectations | | | | |
| **Personal Evaluations** | | | | | |
| Societal Evaluation | | | | | |
| Positive | 88.0% (225) | 75.8% (376) | 63.9% (382) | 52.5% (524) | 38.3% (371) |
| | $X^2$ = 217: df = 8: R = 27 | | | | |
| Medium | 77.6 (147) | 71.1 (322) | 52.7 (357) | 39.8 (630) | 29.7 (482) |
| | $X^2$ = 224: df = 8: R = 28 | | | | |
| Negative | 78.7 (89) | 60.3 (257) | 45.4 (273) | 27.6 (543) | 22.0 (486) |
| | $X^2$ = 239: df = 8: R = 30 | | | | |

*The operational measure of Socioeconomic Status appears in Appendix B, pp. 183-187. The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

## Table 5.10a (Continued)*

| | Socio-Economic Status | | | | |
|---|---|---|---|---|---|
| | Upper Class I | II | III | IV | Lower Class V |
| | | | % With College Expectations | | |
| **Personal Evaluations** | | | | | |
| School Evaluation | | | | | |
| Positive | 88.3% (128) | 81.1% (269) | 63.1% (290) | 52.0% (531) | 41.0% (402) |
| | $X^2$ = 178: df = 8: R = 22 | | | | |
| Medium | 83.3 (168) | 69.0 (348) | 55.8 (382) | 38.3 (624) | 27.2 (515) |
| | $X^2$ = 287: df = 8: R = 36 | | | | |
| Negative | 78.3 (165) | 62.2 (349) | 46.0 (342) | 28.8 (554) | 20.5 (407) |
| | $X^2$ = 325: df = 8: R = 41 | | | | |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.10a (Continued)*

|  | Socio-Economic Status |  |  |  |  |
|---|---|---|---|---|---|
|  | Upper Class I | II | III | IV | Lower Class V |
|  | % With College Expectations |  |  |  |  |
| Personal Evaluations |  |  |  |  |  |
| Self-Evaluation |  |  |  |  |  |
| Positive | 90.3% (165) | 79.9% (338) | 62.4% (359) | 49.7% (580) | 40.7 (386) |
|  | $X^2 = 216$: df = 8: R = 27 |  |  |  |  |
| Medium | 85.0 (180) | 67.0 (385) | 57.3 (396) | 39.5 (665) | 28.2 (531) |
|  | $X^2 = 284$: df = 8: R = 36 |  |  |  |  |
| Negative | 69.5 (118) | 60.5 (233) | 39.8 (264) | 27.7 (455) | 20.0 (411) |
|  | $X^2 = 185$: df = 8: R = 23 |  |  |  |  |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

Table 5.11

## SUMMARY TABLE OF THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' ASPIRATIONS FOR A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | | % With College Aspirations | | |
| Personal Evaluations | | | | |
| Societal Evaluation | | | | |
| Positive | 83.5% (533) | 74.5% (521) | 63.5% (554) | 58.8% (260) |
| | $X^2 = 81$: df = 6: R = 14 | | | |
| Medium | 72.4 (493) | 61.7 (541) | 53.5 (574) | 50.4 (329) |
| | $X^2 = 63$: df = 6: R = 10 | | | |
| Negative | 63.4 (402) | 48.8 (448) | 47.3 (442) | 33.4 (341) |
| | $X^2 = 76$: df = 6: R = 13 | | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189.
The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.11 (Continued)*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | % With College Aspirations | | | |
| **Personal Evaluations** | | | | |
| School Evaluation | | | | |
| Positive | 82.0% (467) | 70.3% (488) | 62.8% (446) | 58.5% (212) |
| | $X^2 = 68$: df = 6: R = 11 | | | |
| Medium | 72.0 (504) | 61.3 (574) | 56.6 (625) | 44.8 (337) |
| | $X^2 = 66$: df = 6: R = 11 | | | |
| Negative | 68.0 (463) | 54.8 (454) | 46.1 (501) | 42.4 (384) |
| | $X^2 = 80$: df = 6: R = 15 | | | |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

## Table 5.11 (Continued)*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | | % With College Aspirations | | |
| Personal Evaluations | | | | |
| Self-Evaluation | | | | |
| Positive | 81.5% (562) | 68.1% (546) | 63.2% (492) | 57.6% (224) |
| | $X^2 = 68$: df = 6: R = 11 | | | |
| Medium | 71.6 (552) | 62.6 (588) | 53.6 (655) | 50.1 (359) |
| | $X^2 = 61$: df = 6: R = 10 | | | |
| Negative | 65.0 (317) | 53.9 (384) | 47.7 (432) | 36.2 (348) |
| | $X^2 = 66$: df = 6: R = 11 | | | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

## Table 5.11a

## SUMMARY TABLE OF THE RELATIONSHIP BETWEEN POVERTY AWARENESS AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | | % with College Expectations | | |
| Personal Evaluations | | | | |
| Societal Evaluation | | | | |
| Positive | 75.5% (531) | 64.6% (520) | 51.2% (553) | 42.1% (259) |
| | $X^2 = 172$: df = 6: R = 29 | | | |
| Medium | 64.0 (492) | 49.4 (538) | 40.0 (572) | 33.4 (329) |
| | $X^2 = 125$: df = 6: R = 21 | | | |
| Negative | 56.6 (401) | 37.9 (448) | 30.8 (441) | 20.0 (339) |
| | $X^2 = 133$: df = 6: R = 22 | | | |

*The operational measure of Poverty Awareness appears in Appendix B, pp. 188-189. The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.11a (Continued)*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | % With College Expectations | | | |
| Personal Evaluations | | | | |
| School Evaluation | | | | |
| Positive | 75.8% (466) | 58.9% (487) | 49.8% (444) | 40.3% (211) |
| | $X^2 = 113$: df = 6: R = 19 | | | |
| Medium | 63.7 (502) | 50.7 (572) | 41.8 (625) | 31.1 (338) |
| | $X^2 = 118$: df = 6: R = 20 | | | |
| Negative | 59.3 (462) | 43.3 (453) | 32.5 (499) | 26.0 (381) |
| | $X^2 = 141$: df = 6: R = 24 | | | |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.11a (Continued)*

| | Poverty Awareness | | | |
|---|---|---|---|---|
| | Well-off | Slightly Well-off | Not too Well-off | Not Well-off |
| | % With College Expectations | | | |
| Personal Evaluations | | | | |
| Self-Evaluation | | | | |
| Positive | 73.4% (560) | 59.5% (543) | 51.3% (491) | 42.2% (225) |
| | $X^2$ = 89: df = 6: R = 15 | | | |
| Medium | 66.4 (551) | 50.4 (589) | 39.7 (653) | 34.7 (357) |
| | $X^2$ = 135: df = 6: R = 22 | | | |
| Negative | 53.2 (316) | 40.6 (382) | 31.6 (431) | 19.6 (346) |
| | $X^2$ = 123: df = 6: R = 20 | | | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

Table 5.12

SUMMARY TABLE OF THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' ASPIRATIONS FOR A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

|  | Peer Influence |  |
|---|---|---|
|  | College or Junior College | Other |
|  | % With College Aspirations |  |
| Personal Evaluations |  |  |
| Societal Evaluation |  |  |
| Positive | 85.1% (1164) | 50.3% (714) |
|  | $X^2 = 278$: df = 2: R = 139 |  |
| Medium | 77.6 (933) | 43.2 (1018) |
|  | $X^2 = 268$: df = 2: R = 134 |  |
| Negative | 70.9 (639) | 34.5 (1016) |
|  | $X^2 = 241$: df = 2: R = 120 |  |

*The operational measure of Peer Influence appears in Appendix B, p. 191.
The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.12 (Continued)*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Aspirations | |
| Personal Evaluations | | |
| School Evaluation | | |
| Positive | 82.0% (915) | 54.7% (709) |
| | $X^2 = 166$: df = 2: R = 83 | |
| Medium | 78.6 (999) | 41.7 (1046) |
| | $X^2 = 315$: df = 2: R = 158 | |
| Negative | 76.9 (823) | 33.1 (1006) |
| | $X^2 = 370$: df = 2: R = 185 | |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.12 (Continued)*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Aspirations | |
| Personal Evaluations | | |
| Self-Evaluation | | |
| Positive | 81.2% (1110) | 51.7% (725) |
| | $X^2 = 218$: df = 2: R = 109 | |
| Medium | 80.3 (1048) | 40.9 (1121) |
| | $X^2 = 366$: df = 2: R = 183 | |
| Negative | 73.4 (582) | 35.4 (918) |
| | $X^2 = 225$: df = 2: R = 113 | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

## Table 5.12a

## SUMMARY TABLE OF THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' EXPECTATIONS OF OBTAINING A COLLEGE EDUCATION OR MORE, BY PERSONAL EVALUATIONS*

|  | Peer Influence |  |
|---|---|---|
|  | College or Junior College | Other |
|  | % With College Expectations |  |
| Personal Evaluations |  |  |
| Societal Evaluation |  |  |
| Positive | 77.0% (1161) | 35.2% (711) |
|  | $X^2 = 337$: df = 2: R = 168 |  |
| Medium | 67.3 (932) | 29.1 (1012) |
|  | $X^2 = 329$: df = 2: R = 164 |  |
| Negative | 60.5 (638) | 21.5 (1013) |
|  | $X^2 = 309$: df = 2: R = 154 |  |

*The operational measure of Peer Influence appears in Appendix B, p. 191.
The operational measure of Societal Evaluation appears in Appendix B, pp. 192-193.

Table 5.12a (Continued)*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| Personal Evaluations | | |
| School Evaluation | | |
| Positive | 74.9% (913) | 38.5% (706) |
| | $X^2$ = 256: df = 2: R = 128 | |
| Medium | 68.3 (998) | 28.3 (1044) |
| | $X^2$ = 363: df = 2: R = 182 | |
| Negative | 65.9 (822) | 19.6 (998) |
| | $X^2$ = 441: df = 2: R = 220 | |

*The operational measure of School Evaluation appears in Appendix B, pp. 194-195.

Table 5.12a (Continued)*

| | Peer Influence | |
|---|---|---|
| | College or Junior College | Other |
| | % With College Expectations | |
| **Personal Evaluations** | | |
| Self-Evaluation | | |
| Positive | 74.2% (1109) | 36.8% (721) |
| | $X^2$ = 297: df = 2: R = 148 | |
| Medium | 70.1 (1046) | 28.4 (1119) |
| | $X^2$ = 403: df = 2: R = 201 | |
| Negative | 60.9 (581) | 19.8 (911) |
| | $X^2$ = 297: df = 2: R = 148 | |

*The operational measure of Self-Evaluation appears in Appendix B, pp. 196-197.

Table 6.1

## THE RELATIONSHIP BETWEEN PARENTAL PRESSURE AND STUDENTS' ASPIRATIONS FOR COLLEGE BY GRADE IN SCHOOL, COURSE OF STUDY AND SOCIETAL EVALUATION*

| | Junior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Parental Pressure | | | |
| | College | Other | College | Other |
| | % Aspiring to College | | | |
| Societal Evaluation<br>Positive | 97.3 (284) | 48.0 (25) | 84.2 (139) | 20.2 ( 84) |
| | $X^2$ = Indeterminate** | | $X^2$ = 119: df = 4: R = 30 | |
| Neutral | 97.2 (252) | 50.0 (44) | 81.2 (197) | 18.9 (169) |
| | $X^2$ = Indeterminate** | | $X^2$ = 153: df = 4: R = 38 | |
| Negative | 91.1 (169) | 39.5 (38) | 66.5 (203) | 14.5 (186) |
| | $X^2$ = 106: df = 4: R = 27 | | $X^2$ = 152: df = 4: R = 38 | |

*The item used to measure Parental Pressure appear in Appendix B, p. 190.
The item used to measure Students' Aspirations appear in Appendix B, p. 198.
The items used to measure Societal Evaluation appear in Appendix B, pp. 192-193.

**$X^2$ value is indeterminate because in the complete table, a zero cell is present.

Table 6.1 (Continued)*

| | Senior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Parental Pressure | | | |
| | College | Other | College | Other |
| | % Aspiring to College | | | |
| Societal Evaluation | | | | |
| Positive | 96.9 (653) | 41.8 (33) | 56.3 (64) | 18.1 (227) |
| | $X^2$ = Indeterminate** | | $X^2$ = 38: df = 4: R = 10 | |
| Neutral | 94.1 (444) | 38.6 (34) | 47.9 (71) | 14.0 (278) |
| | $X^2$ = Indeterminate** | | $X^2$ = 48: df = 4: R = 12 | |
| Negative | 93.5 (262) | 34.5 (58) | 51.9 (77) | 11.4 (264) |
| | $X^2$ = Indeterminate** | | $X^2$ = 94: df = 4: R = 23 | |

*The item used to measure Parental Pressure appears in Appendix B, p. 190.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure Societal Evaluation appear in Appendix B, pp. 192-193.

**$X^2$ value is indeterminate because in the complete table, a zero cell is present.

## Table 6.2

### THE RELATIONSHIP BETWEEN PARENTAL PRESSURE AND STUDENTS' ASPIRATIONS FOR COLLEGE BY GRADE IN SCHOOL, COURSE OF STUDY AND SCHOOL EVALUATION*

| | Junior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Parental Pressure | | | |
| | College | Other | College | Other |
| | % Aspiring to College | | | |
| School Evaluation | | | | |
| Positive | 98.0 (350) | 47.4 (38) | 86.1 (187) | 21.5 (130) |
| | $X^2$ = Indeterminate** | | $X^2 = 178$: df = 4: R = 44 | |
| Neutral | 93.6 (250) | 47.8 (46) | 73.2 (205) | 16.9 (160) |
| | $X^2$ = Indeterminate** | | $X^2 = 146$: df = 4: R = 37 | |
| Negative | 94.8 (115) | 40.9 (22) | 69.2 (146) | 14.0 (150) |
| | $X^2$ = Indeterminate** | | $X^2 = 103$: df = 4: R = 26 | |

*The item used to measure Parental Pressure appears in Appendix B, p. 190.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure School Evaluation appear in Appendix B, pp. 194-195.

**$X^2$ value is indeterminate because in the complete table, a zero cell is present.

### Table 6.2 (Continued)*

| | Senior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Parental Pressure | | | |
| | College | Other | College | Other |
| | % Aspiring to College | | | |
| School Evaluation | | | | |
| Positive | 96.8 (378) | 42.9 (56) | 61.7 (47) | 17.3 (185) |
| | $X^2$ = Indeterminate** | | $X^2$ = 43: df = 4: R = 10 | |
| Neutral | 95.5 (537) | 38.9 (90) | 54.9 (71) | 13.6 (280) |
| | $X^2$ = Indeterminate** | | $X^2$ = 75: df = 4: R = 19 | |
| Negative | 93.7 (493) | 35.4 (79) | 44.8 (96) | 13.4 (307) |
| | $X^2$ = Indeterminate** | | $X^2$ = 54: df = 4: R = 14 | |

*The item used to measure Parental Pressure appears in Appendix B, p. 190.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure School Evaluation appear in Appendix B, pp. 194-195.

**$X^2$ value is indeterminate because in the complete table, a zero cell is present.

Table 6.3

THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' ASPIRATIONS FOR COLLEGE BY SEX, GRADE IN SCHOOL AND SELF-IMAGE*

| | Male | | | |
|---|---|---|---|---|
| | Grade in School | | | |
| | Junior High School | | Senior High School | |
| | Peer Influence | | | |
| | College or Junior College | Other | College or Junior College | Other |
| | % Aspiring to College | | | |
| Self-Image | | | | |
| Positive | 94.0 (150) | 74.6 (142) | 88.2 (280) | 61.7 (154) |
| | $X^2 = 23$: df = 2: R = 12 | | $X^2 = 42$: df = 2: R = 21 | |
| Neutral | 85.1 (175) | 60.6 (282) | 90.5 (358) | 41.8 (273) |
| | $X^2 = 32$: df = 2: R = 16 | | $X^2 = 176$: df = 2: R = 88 | |
| Negative | 76.3 (114) | 50.6 (310) | 82.0 (261) | 36.2 (271) |
| | $X^2 = 27$: df = 2: R = 14 | | $X^2 = 118$: df = 2: R = 59 | |

*The item used to measure Peer Influence appears in Appendix B, p. 191.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure Self-Image appear in Appendix B, pp. 196-197.

## Table 6.3 (Continued)*

| | Female | | | |
|---|---|---|---|---|
| | Grade in School | | | |
| | Junior High School | | Senior High School | |
| | Peer Influence | | | |
| | College or Junior College | Other | College or Junior College | Other |
| | % Aspiring to College | | | |
| Self-Image | | | | |
| Positive | 80.0 (245) | 56.3 (192) | 72.7 (433) | 28.0 (236) |
| | $X^2$ = 42: df = 2: R = 21 | | $X^2$ = 147: df = 2: R = 74 | |
| Neutral | 70.9 (182) | 40.2 (264) | 72.0 (332) | 21.9 (301) |
| | $X^2$ = 45: df = 2: R = 22 | | $X^2$ = 165: df = 2: R = 82 | |
| Negative | 59.5 (79) | 23.6 (178) | 62.7 (126) | 17.4 (155) |
| | $X^2$ = 34: df = 2: R = 17 | | $X^2$ = 70: df = 2: R = 35 | |

*The item used to measure Peer Influence appears in Appendix B, p. 191.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure Self-Image appear in Appendix B, pp. 196-197.

## Table 6.4

### THE RELATIONSHIP BETWEEN PEER INFLUENCE AND STUDENTS' ASPIRATIONS FOR COLLEGE BY GRADE IN SCHOOL, COURSE OF STUDY AND SCHOOL EVALUATION*

| | Junior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Peer Influence | | | |
| | College or Junior College | Other | College or Junior College | Other |
| | % Aspiring to College | | | |
| School Evaluation<br>Positive | 95.6 (249) | 83.7 (160) | 63.2 (144) | 50.8 (246) |
| | $X^2 = 19$: df = 2: R = 10 | | $X^2 = 17$: df = 2: R = 8 | |
| Neutral | 87.3 (166) | 81.2 (154) | 62.1 (145) | 35.3 (331) |
| | $X^2 = 7$: df = 2: R = 4 | | $X^2 = 32$: df = 2: R = 16 | |
| Negative | 89.9 (79) | 72.2 (79) | 63.3 (98) | 29.9 (278) |
| | $X^2 = 8$: df = 2: R = 4 | | $X^2 = 36$: df = 2: R = 18 | |

*The item used to measure Peer Influence appears in Appendix B, p. 191.
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure School Evaluation appear in Appendix B, pp. 194-195.

Table 6.4 (Continued)*

| | Senior High School | | | |
|---|---|---|---|---|
| | Course of Study | | | |
| | College Preparatory | | Other | |
| | Peer Influence | | | |
| | College or Junior College | Other | College or Junior College | Other |
| | % Aspiring to College | | | |
| School Evaluation | | | | |
| Positive | 92.0 (364) | 80.2 (91) | 36.6 (101) | 20.3 (158) |
| | $X^2$ = 11: df = 2: R = 6 | | $X^2$ = 10: df = 2: R = 5 | |
| Neutral | 92.0 (499) | 66.1 (174) | 31.7 (126) | 16.9 (302) |
| | $X^2$ = 72: df = 2: R = 36 | | $X^2$ = 28: df = 2: R = 14 | |
| Negative | 89.8 (452) | 66.9 (178) | 36.0 (125) | 13.8 (378) |
| | $X^2$ = 48: df = 2: R = 24 | | $X^2$ = 44: df = 2: R = 11 | |

*The item used to measure Peer Influence appears in Appendix B, p. 191.
The item used to measure Students' Aspirations appear in Appendix B, p. 198.
The items used to measure School Evaluation appear in Appendix B, pp. 194-195.

## Table 6.5

## THE RELATIONSHIP BETWEEN SUBJECTIVE SOCIOECONOMIC STATUS AND STUDENTS' ASPIRATIONS FOR COLLEGE BY SEX, GRADE IN SCHOOL AND SOCIETAL EVALUATION*

| | Male | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Grade in School | | | | | | | |
| | Junior High School | | | | Senior High School | | | |
| | Subjective Socioeconomic Status | | | | | | | |
| | Well-off | Somewhat Well-off | Not too Well-off | Not Well-off | Well-off | Somewhat Well-off | Not too Well-off | Not Well-off |
| Societal Evaluation | % Aspiring to College | | | | | | | |
| Positive | 88.1(101) | 85.6( 90) | 76.1( 88) | 56.8(37) | 85.2(155) | 80.8(146) | 72.2(187) | 71.6(95) |
| | $X^2 = 24$: df = 6: R = 4 | | | | $X^2 = 12$: df = 6: R = 2 | | | |
| Neutral | 80.4(107) | 75.2(141) | 66.4(113) | 59.3(81) | 84.5(142) | 72.2(133) | 61.6(185) | 59.4(106) |
| | $X^2 = 19$: df = 6: R = 3 | | | | $X^2 = 31$: df = 6: R = 5 | | | |
| Negative | 63.3(120) | 60.8( 97) | 65.3( 98) | 40.0(75) | 74.0(100) | 60.2(113) | 48.8(127) | 40.0(100) |
| | $X^2 = 14$: df = 6: R = 2 | | | | $X^2 = 29$: df = 6: R = 5 | | | |

*The items used to measure Subjective Socioeconomic Status appear in Appendix B, pp. 188-189
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure Societal Evaluation appear in Appendix B, pp. 192-193.

Table 6.5 (Continued)*

| | Female | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Grade in School | | | | | | | |
| | Junior High School | | | | Senior High School | | | |
| | Subjective Socioeconomic Status | | | | | | | |
| | Well-off | Somewhat Well-off | Not too Well-off | Not Well-off | Well-off | Somewhat Well-off | Not too Well-off | Not Well-off |
| | % Aspiring to College | | | | | | | |
| Societal Evaluation | | | | | | | | |
| Positive | 78.0(100) | 76.4(106) | 49.4(89) | 68.8(32) | 82.5(177) | 62.4(178) | 55.6(189) | 43.8(96) |
| | $X^2$ = 24: | df = 6: | R = 4 | | $X^2$ = 55: | df = 6: | R = 9 | |
| Neutral | 65.1(109) | 61.6(112) | 52.1(121) | 41.7(60) | 59.7(134) | 40.9(154) | 35.1(154) | 36.6(82) |
| | $X^2$ = 19: | df = 6: | R = 3 | | $X^2$ = 21: | df = 6: | R = 4 | |
| Negative | 57.3(103) | 40.9(115) | 40.9(93) | 29.2(72) | 59.0(78) | 37.2(121) | 35.2(122) | 23.9(92) |
| | $X^2$ = 21: | df = 6: | R = 4 | | $X^2$ = 29: | df = 6: | R = 5 | |

*The items used to measure Subjective Socioeconomic Status appear in Appendix B, pp. 188-189
The item used to measure Students' Aspirations appears in Appendix B, p. 198.
The items used to measure Societal Evaluation appear in Appendix B, pp. 192-193.

# APPENDIX E

This appendix contains tables showing the relationships between the operational measures of School Evaluation and Self-Evaluation used in the present thesis to other measures developed to tap these concepts.

Table 4.10

## THE RELATIONSHIP BETWEEN SCHOOL EVALUATION AND SCHOOL IDENTIFICATION*

| | School Evaluation | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| School Identification | | | |
| Positive | 58.2% | 37.8% | 18.7% |
| Medium | 25.8 | 32.4 | 29.5 |
| Negative | 16.0 | 29.8 | 51.8 |
| | (1642) | (2083) | (1852) |

$X^2 = 722$: df = 4: R = 181

---

*See Appendix B, pp. 194-195, for the operational measure of School Evaluation and, Appendix C, pp. 201-202, for the operational measure of School Identification.

## Table 4.11

## THE RELATIONSHIP BETWEEN SELF-IMAGE AND MIRROR-IMAGE*

| Mirror-Image | Self-Image | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| Positive | 50.7% | 34.2% | 20.9% |
| Medium | 31.2 | 33.9 | 30.1 |
| Negative | 18.1 | 32.0 | 49.1 |
| | (2004) | (1990) | (1592) |

$X^2$ = 494: df = 4: R = 123

## Table 4.12

## THE RELATIONSHIP BETWEEN SELF-IMAGE AND SELF-ESTEEM**

| Self-Esteem | Self-Image | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| Positive | 53.1% | 33.0% | 19.1% |
| Medium | 32.9 | 39.3 | 33.5 |
| Negative | 14.0 | 27.7 | 47.4 |
| | (1861) | (2207) | (1533) |

$X^2$ = 623: df = 4: R = 156

*See Appendix B, pp. 196-197, for the items used to measure Self-Image and Appendix C, pp. 206-207 for the items used to measure Mirror-Image.

**See Appendix C, pp. 203-205, for the items used to measure Self-Esteem.

## Table 4.13

## THE RELATIONSHIP BETWEEN SELF-IMAGE AND MIRROR-IMAGE*

| | Self-Image | | |
|---|---|---|---|
| | Positive | Medium | Negative |
| Mirror-Image | | | |
| Positive | 67.5% | 30.1% | 7.6% |
| Medium | 25.9 | 44.3 | 21.2 |
| Negative | 6.6 | 25.6 | 71.2 |
| | (1854) | (2194) | (1520) |

$X^2 = 2188$ : df = 4: R = 547

---

*See Appendix B, pp. 196-197, for the items used to measure Self-Image and Appendix C, pp. 206-207, for the items used to measure Mirror-Image.

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# EDUCATIONAL HORIZONS
# AMONG LOWER CLASS NEGRO
# HIGH SCHOOL STUDENTS

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# I. INTRODUCTION

The basic objective of this study is to investigate the determinants of educational horizons within an inner-city population of lower class Negro high school students. In view of ghetto conditions, limited economic resources, and racial minority status, why do some of these students aspire and expect to complete a higher education in a four year college or university? What are the conditions which differentiate these students from their schoolmates? Are these conditions sufficient to account for the differences which exist in educational horizons?

The principle procedures to be utilized are multivariate, intervening variable analysis of survey questionnaire data. The procedures also include correlational techniques combined with emphasis on tabular analysis and presentation of empirical findings. A theoretically based conceptual model will be used to organize the research and to provide the hypotheses which are to be tested.

The population survey contains 823 Negro students from a predominantly black junior-senior high school. The school is located in an economically deprived, inner-city section of metropolitan Pittsburgh, Pennsylvania.

## A. Significance of the Problem

One of the major consequences of poverty and of racial minority status in the United States today is the probability of inadequate education. Education which is low in quality and limited in amount is followed by an impaired ability to function occupationally and socially. Poverty seems to breed poverty generation after generation. Its costs in money and in wasted human resources is exorbitant. The vicious circle could be broken and the costs of poverty reduced by intervening in the process so that low social status would not lead to poor education.

Effective intervention in the poverty--inadequate education--limited employment--poverty cycle requires knowledge of the factors leading to educational horizons. The desire for and expectation of a high level of educational attainment are prerequisites not only for a more than minimal kind of schooling, but also for the professions and the skilled occupations that dominate the job market today. If the conditions associated with high educational horizons can be identified, then rational and effective intervention in the poverty-to-poverty process is possible. It is important that sufficient conditions to high educational horizons within the lower class black population be isolated, if they are to be helped out of their depressing situation.

Specific points of social theory relevant to the subject of this analysis will be discussed later, but the population selected for study represents an extreme of the American social structure--and thus an opportunity to test and refine knowledge about this relatively unstudied section of society. Analysis of educational horizons among lower class Negro high school students is germane to contemporary "social problems" and to issues in stratification theory.

## B. Related Research

As Goldberg[1] and Passow[2] have pointed out, there is an acute need for social research on the characteristics of poverty status high school students. Most interest has been shown in studies of pre-school and elementary age children. Only recently with the work of Coleman,[3] the U.S. Commission on Civil Rights,[4] and others has there been a shift in this interest. Generally, even these latter works do not give both extensive and comprehensive analysis of the subject proposed. For example, despite his survey of some 600,000 students, Coleman deals only with grades 1, 3, 6, 9, and 12.

Insofar as variations in physical school facilities like libraries or laboratories and differences in teachers' abilities and verbal facilities are concerned, Coleman has concluded, "Differences between schools account for only a small fraction of difference in pupil achievement."[5] He found that four major variables are most important:

---

[1] Goldberg, Miriam L. "Factors Affecting Educational Attainment in Depressed Urban Areas," Education in Depressed Areas. (ed.). A. Harry Passow. New York: Columbia University Teachers College Press, 1965, pp. 68-100.

[2] Passow, A. Harry (ed.). Education in Depressed Areas, New York: Columbia University Teachers College Press, 1965, Introduction.

[3] Coleman, James S. et al. Equality of Educational Opportunity, Washington, D.C.: Government Printing Office, 1966.

[4] U.S. Civil Rights Commission. Racial Isolation in the Schools, Washington, D.C.: Government Printing Office, 1967.

1. Peer group culture or interest of fellow students in achievement in the school environment.
2. Social class composition of the school.
3. Good teachers are more important to and more influential on poverty students than on middle class or on non-poverty students.
4. Self-image of the student, especially if he feels that he is in a position to control his own future and has a sense of his own worth.[6]

In a further analysis of Coleman's report and of additional data, the U.S. Commission on Civil Rights concluded that the following three variables are of fundamental significance for student achievement in academic work:

1. Social class origin of the student.
2. Nature of the peer group and its academic interests and activities.
3. Racial isolation or segregation in school.[7] The techniques of analysis employed by the Commission established that racial isolation or segregation was more important in

---

[5] Coleman, Op.cit., p. 22.

[6] Loc.cit..

[7] U.S. Civil Rights Commission, Op.cit., pp. 84ff and p. 193.

explaining school achievement than: a) the social class of the student,[8] b) teacher quality,[9] c) compensatory educational programs meant to off-set effects of poverty, class segregation, or racial isolation.[10]

The findings and conclusions of Coleman and the U.S. Commission on Civil Rights are supported by numerous other studies. The role of the peer group in shaping educational aspirations was noted earlier by Krauss[11] and Wilson[12] in connection with high involvement in schools' extracurricular activities. However, Haller and Butterworth[13] reported that they could find little evidence to support the idea of peer influence on educational or occupational aspirations beyond reinforcing the preexistent patterns of student aspiration.

Concerning the role of the social class composition of the school as pointed out by Coleman, both Krauss[14] and

---

[8] U.S. Civil Rights Commission, Op.cit., pp. 89ff.

[9] Loc.cit., p. 97.

[10] Loc.cit., pp. 110ff and p. 140.

[11] Krauss, Irving. "Sources of Educational Aspirations among Working-class Youth," American Sociological Review, XXIX (1964), pp. 867-879.

[12] Wilson, Alan B. "Residential Segregation of Social Classes and Aspirations of High School Boys," American Sociological Review, XXIV (December, 1959), pp. 836-845.

[13] Haller, Archie O., Butterworth, C.E. "Peer Influences on Levels of Occupational and Educational Aspiration," Social Forces, XXXVIII (May, 1960), pp. 289-295.

[14] Krauss, Op.cit., pp. 867-879.

and Wilson[15] found that a middle class school was important in that lower class pupils were more likely to plan to go to college in that situation than if they were in a single class, lower class school.

Closely related to the class composition of the school is its racial isolation or segregation. Gottlieb and Houten[16] observed that the racially isolated minority (Negro or white) within a school was low on activities and interpersonal relationships which are associated with plans or aspirations for future schooling. Weinberg[17] and Lesser et al[18] were able to report that educational achievements increased in desegregated schools over achievement levels in racially isolated schools. Geisel[19] found that academic performance and "IQ" scores were low but educational and occupational aspirations were high in southern racially isolated Negro schools compared to the all white schools in the same area. Geisel suggested that these unexpected findings may be explained by the existence of lower class Negro subcultures. Isolated from general societal participation and confronted with limited education and a restricted range of viable occupational choices, aspirations were formed in reference to the subculture rather than to the larger societal system. Rodman[20] did not deal with racial isolation but with lower class values vis-a-vis values of the larger society when he described the "value stretch" through which the lower class modifies cultural goals to bring them within potential grasp. Geisel's and Rodman's works are instructive regarding the roles of class composition and racial isolation of the school as a context within which educational horizons are shaped.

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[15] Wilson, Op.cit., pp. 836-845.

[16] Gottlieb, David, and Houten, Warren Ten. "The Social Systems of Negro and White Adolescents," Paper read at Annual Meeting of the American Sociological Association, Montreal, Canada, September, 1964.

[17] Weinberg, Meyer. Research on School Desegregation: Review and Prospect, Chicago: Integrated Education Associates, 1965.

[18] Lesser, Gerald S. et al. "Some Effects of Segregation and Desegregation in the Schools," Integrated Education, June-July, 1964.

[19] Geisel, Paul N. "IQ Performance, Educational and Occupational Aspirations of Youth in a Southern City," Unpublished Ph.D. Dissertation, Vanderbilt University, 1962.

The students' self-image was supported as a major factor in school achievement and in educational aspiration, not only by Coleman and the Civil Rights Commission, but also by the research of Rosenberg[21] and Deutsch.[22]

On students' social class origin, many researchers have seen a close relationship to educational aspirations or college plans: Waldo,[23] Cohen and Sullivan,[24] Wilson.[25] Bell,[26] Simpson,[27] and Bordua[28] discovered that the role of class was reduced by parental desires or pressures for the education of their children. Waldo[29] established that the parents' aspirations and social class operate together in determining students' aspirations unless their parent-child relations are very high or very low and then the influence of social class disappears.

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[20] Rodman, Hyman. "The Lower Class Value Stretch," Social Forces, XLII (December, 1963), pp. 205-215.

[21] Rosenberg, Morris. Society and the Adolescent Self-Image. Princeton: Princeton University Press, 1965.

[22] Deutsch, Martin. "The Disadvantaged Child and the Learning Process," Mental Health of the Poor, (ed.). Frank Riessman et al, New York: The Free Press, 1964.

Kahl[30] analyzed a group of working class boys with sufficient "IQ" for college, and he found that differences in their college aspirations were due to parental influence. Parents dissatisfied with their own social position or way of life promoted high educational values and aspirations as a means to social mobility for their sons. More recently, Cohen[31] and Fleming[32] have confirmed the strong association between students' plans to go to college and their parents' desires for the children's attainments in education, occupation, and social mobility.

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[23] Waldo, Leslie C. "The Educational Aspirations of Adolescent Boys," Unpublished Ph.D. Dissertation, Department of Sociology, Stanford University, 1963.

[24] Cohen, Wilbur J. and Sullivan, Eugenia, "Poverty in the United States," Health, Education and Welfare Indicator, February, 1964.

[25] Wilson, Op.cit., pp. 836-845.

[26] Bell, Gerald D. "Processes in the Formation of Adolescents' Aspirations," Social Forces, XXXXII (December, 1963), pp. 179-186.

[27] Simpson, Richard L. "Parental Influence, Anticipatory Socialization and Social Mobility," American Sociological Review, XXVII (August, 1962), pp. 517-522.

[28] Bordua, David J. "Educational Aspirations and Parental Stress on College," Social Forces, XXXVIII (February, 1960), pp. 262-269.

[29] Waldo, Op.cit..

[30] Kahl, Joseph A. "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, XXIII (Summer, 1953), pp. 186-203.

The foregoing review of the literature has revealed certain basic areas in need of research. It is clear that empirical knowledge of educational horizons among students in high school is rather limited, and virtually no attention has been given to both aspiration and anticipation as dimentions of educational horizons. Little is known about either educational aspirations or anticipations of college among lower class urban Negro youth. Furthermore, investigation of the effects of cultural deprivation on various aspects of educational horizons has just begun and more information is needed. Each of these areas of research need constitutes a justification for the present study of the determinants of educational horizons of lower class, black high school students within an urban ghetto.

The preceding survey of the literature has shown some variables of primary importance, likely relationships with educational aspirations and anticipations, and factors which are significant but controlled by the population that has been selected for analysis. Previous research has made plain the relevance of the following variables: a) Social class of the subjects--controlled in this analysis by using lower class students. b) Social class composition of the school--rendered constant by selecting a school made up of lower class students. c) Inter-school variations--excluded by use of one school. d) Race of the subjects--controlled by dropping 48 whites or others from the population of 871. e) Racial segregation or isolation of the school--held constant by the fact that 95 percent of the student body is Negro and resides within a large, and predominantly black, ghetto. f) Rural-urban differences--controlled by using a metropolitan, inner-city school attended by students from the immediate neighborhood. g) Parental desires or aspirations for their chidlren's education are included for analysis as a principle independent factor vis-a-vis educational horizons. h) Peers' interests and attitudes will be a major independent variable in the study. i) Cultural deprivation also is to be treated as a causal factor of prime relevance. j) Student evaluations of their society, race, school, and self-image will be introduced as potentially decisive intervening or modifying variables. k) The standard demographic and contextual attributes of age, sex, grade, and course of study also are to be included in the analysis.

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[31] Cohen, Elizabeth G. "Parental Factors in Educational Mobility," Unpublished Ph.D. Dissertation, Department of Sociology, Radcliffe College, 1958

[32] Fleming, W. G. Backgrounds and Personality Factors Associated with Educational and Occupational Plans and Careers of Ontario Grade 13 Students. Toronto: Department of Educational Research, University of Toronto, 1957

Up to this point the problem has been stated, something of its significance indicated, the relevant literature has been reviewed, research needs noted, and the essential variables listed. The next fundamental step is to establish the general theoretical or conceptual model that is to guide the examination of educational aspirations and anticipations in the lower class, Negro, high school population selected. In the following chapter that model will be presented, made operational, and specific hypotheses derived from it. Then the research procedures and plan of analysis for the remainder of the study will be set-forth.

## II. RESEARCH DESIGN[1]

The general aim of the present study is to account for the educational horizons of lower class Negro high school students. The focal interest is in answering the question: Why do some of these socially depressed and deprived youths desire and expect to go to college? Analysis of the relevant conditions will be guided by a general conceptual model based on current theory and available empirical information. That model will be translated item-by-item into a working or operational model. Definitions and distributions for each of the variables will be presented. Then major research hypotheses will be stated, and finally, the data gathering and analysis procedures will be described.

### A. Conceptual Model

Observations of the various aspects of an event may be ordered and related to each other by sets of concepts, such as: cause--effect, determinant--result, independent--dependent factors, stimulus--response. To explain the relationship, theory provides a larger context of assumptions or "middle terms" like: cause--control--effect, determinant--modifier--result, independent--intervening--dependent variables, stimulus--disposition--response. For example, the descriptive statement, A leads to C, is explained theoretically as a function of the nature of reality under condition B. An adequate theory requires at least a conceptually ordered and related set of three terms. A set of two such terms together with assumptions concerning the character of reality to provide an explanatory linkage, are actually three term sets. The particular terms used are not crucial. Any of the three term sets discussed is a highly abstract model of empirical relationships and, as such, constitutes the most elementary and general level of scientific theory.[2]

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[1] The basic and applied research project is entitled "The Relationship between Poverty and Educational Deprivation." The project is under the direction of Professor Edward A. Suchman, Professor of Sociology, and is funded jointly by the United States Office of Education (Grant Number OEC-1-6-061254-0809) and the Learning Research and Development Center of the University of Pittsburgh. All of the data processing was done on the IMB 7090 and IBM 360 computer systems at the University of Pittsburgh Computation Center and was partially supported by the National Science Foundation (Grant Number G11309). This investigation was supported in part by a Public Health Service Fellowship (PHS Grant Number 5 T01 MH08569) from the Institute of Mental Health.

A useful general theoretical framework or model for social and behavioral studies may be stated: The dependent effect or behavioral response is a function of (1) stimulus or independent variable, which may be an operation or act, an object or process, influence, pressure, i.e., a causal factor or determinant external to the subject, and (2) disposition, which may be an inner state, attitude or value, role obligation or right, i.e., a characteristic of the subject which intervenes to alter, modify, or otherwise condition the linkage between stimulus and response. Furthermore, it is the dispositional or intervening factor that theoretically elaborates and makes possible explanation of the causal relation.[3]

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[2] Stephens, William N. Hypotheses and Evidence, New York: Thomas Y. Crowell, 1968, pp. 168ff. Francis, Roy G. The Rhetoric of Science, Minneapolis: University of Minnesota Press, 1961. Stouffer, Samuel A. Social Research to Test Ideas, New York: The Free Press, 1962, pp. 68-112 has a classic use of intervening variable analysis. Theodorson, George A. "The Uses of Causation in Sociology," Sociological Theory: Inquiries and Paradigms, (ed.) Llewellyn Gross, New York: Harper and Row, 1967, pp. 131-152. Blalock, Hubert M. Causal Inferences in Non-Experimental Research, Chapel Hill: University of North Carolina Press. 1964. Simon, Herbert A. "Spurious Correlation: A Causal Interpretation," Journal of the American Statistical Association, 49 (September, 1954), pp. 467-479. Boudon, Raymond. "A Method of Linear Causal Analysis: Dependence Analasis," American Sociological Review, XXX (June, 1965), pp. 365-374.

The statements of the foregoing paragraph are necessarily concise, almost simplistic, and they do not detail the complexities that often enter into human behavior. What has been presented is an abstract theoretical model. Within this general framework, basic assumptions and additional concepts can be specified.

(1) Background or Study Context. The setting of a study includes a mass of background factors which may be of

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[3] In addition to the references just cited, also see: Skinner, B. F. Science and Human Behavior, New York: The Macmillan Co., 1953, pp. 31-35. Parsons, Talcott and Shils, Edward A. (eds.). Toward a General Theory of Action, New York: Harper and Row, 1962, pp. 4ff. Despite sharp differences in the approaches of Skinner and Parsons, at the most general level of theory their similarities are note-worthy. Skinner's use of "stimulus" parallels Parsons' less dynamic "objects of orientation." Likewise, Skinner's "disposition" is kin to Parsonian "cognitive, cathectic, and evaluative discriminations" or "modes of orientation" vis-a-vis objects in the social situation. In The Social System (New York: The Free Press, 1951, pp. 541-545) Parsons draws a distinction between his use of "action" and the less restrictive, more general "behavior" a la Skinner, however, both terms denote dependent effects or responses.

relevance but which have been held constant. At least for theoretical clarity and relevance, it seems important to delineate the study limits, contextual boundaries, and other factors which are common to the subjects. In a different study context some of these constants could appear as causal variables. The larger societal milieu or encompassing social and cultural systems constitute the parameters of similar traits including memberships, values, practices, and exposure to the processes of change.

(2) The Immediate Situation. Placement within the larger context or common background defines the individual's immediate social psychological and cultural situation. It thereby introduces or permits creation of important variations between subjects. The immediate situation is the arena of cultural stimulation and interpersonal relations. Behavioral response may be stimulated or constrained by: (a) relevant cultural opportunities and skills, and (b) interaction with persons of social psychological significance to the subject. It is a fundamental assumption that behavior is a function of the immediate situation.[4]

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[4] References to these points are numerous ranging from the basic definitions and discussions of culture by men like E. B. Tylor, Ralph Linton, A. L. Kroeber, and Clyde Kluckhohn to the classic works of C. H. Cooley, G. H. Mead, and W. I. Thomas. Contemporary references include: Works by Parsons previously cited. Merton, Robert K. Social Theory and Social Structure, New York: The Free Press, 1957, pp. 225-386. Homans, George C. Social Behavior: Its Elementary Forms, New York: Harcourt, Brace & World, 1961. Sherif, Muzafer and Sherif, Carolyn W. An Outline of Social Psychology, New York: Harper and Row, 1956.

(3) Personal Disposition or Evaluations. An individual's social behavior is neither merely and automatically reactive nor necessarily a rational response to the stimulation or constraint of the immediate situation within which it is evoked. Personal attitudes and values make for selective appraisal of the situation and for differential response to it. Even if a rigorously detached and rational estimation were made of both the present situation and the likely future state of affairs, i.e., of the consequences of alternative responses, these perceptions alone do not necessarily suggest which response a subject will make. Non-logical preferences and intuitive judgments intermingle with more rational assessments as aspects of personal evaluations. It has been pointed out that personal appraisal may be directed toward the stimulus or constraint and toward the present and anticipated social situation; it also is vital to note that self-evaluation is involved at least implicitly. It is a fundamental assumption that social behavior is a function of evaluative predispositions.[5]

The material presented up to this point include the framework, basic assumptions, and concepts for a general or abstract theory of social behavior. However, this theory now must be focused on the educational horizons--educational aspirations and anticipations--of the population that is to be studied. In addition to the major concepts noted already, other concepts will be introduced to make the theory relevant to educational horizons as the dependent effect or response and to the population selected for analysis. Use will be made of the empirical findings discussed in the first chapter insofar as they contribute to specification of the conceptual or theoretical model for this study. Except for presentation of the dependent outcome or response initially, the order of the following treatment will be: background or study context, the immediate situation, personal disposition or evaluations. The model as a whole is visually represented in Figure I and may be found on the following page.[6]

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[5] Classic references include: Karl Marx on interests and ideology; Max Weber on interests, values, and types of rationality; Vilfredo Pareto on non-logical action; Wm. G. Sumner on folkways and mores. Contemporary references are: Works by Parsons cited earlier. Merton, Op.cit., pp. 131-194. Homans, Op.cit., especially on sentiments and exchanges. Sherif and Sherif, Loc.cit..

Dependent Effect or Response. Inspection of Figure I shows that the primary substantive interest of the present

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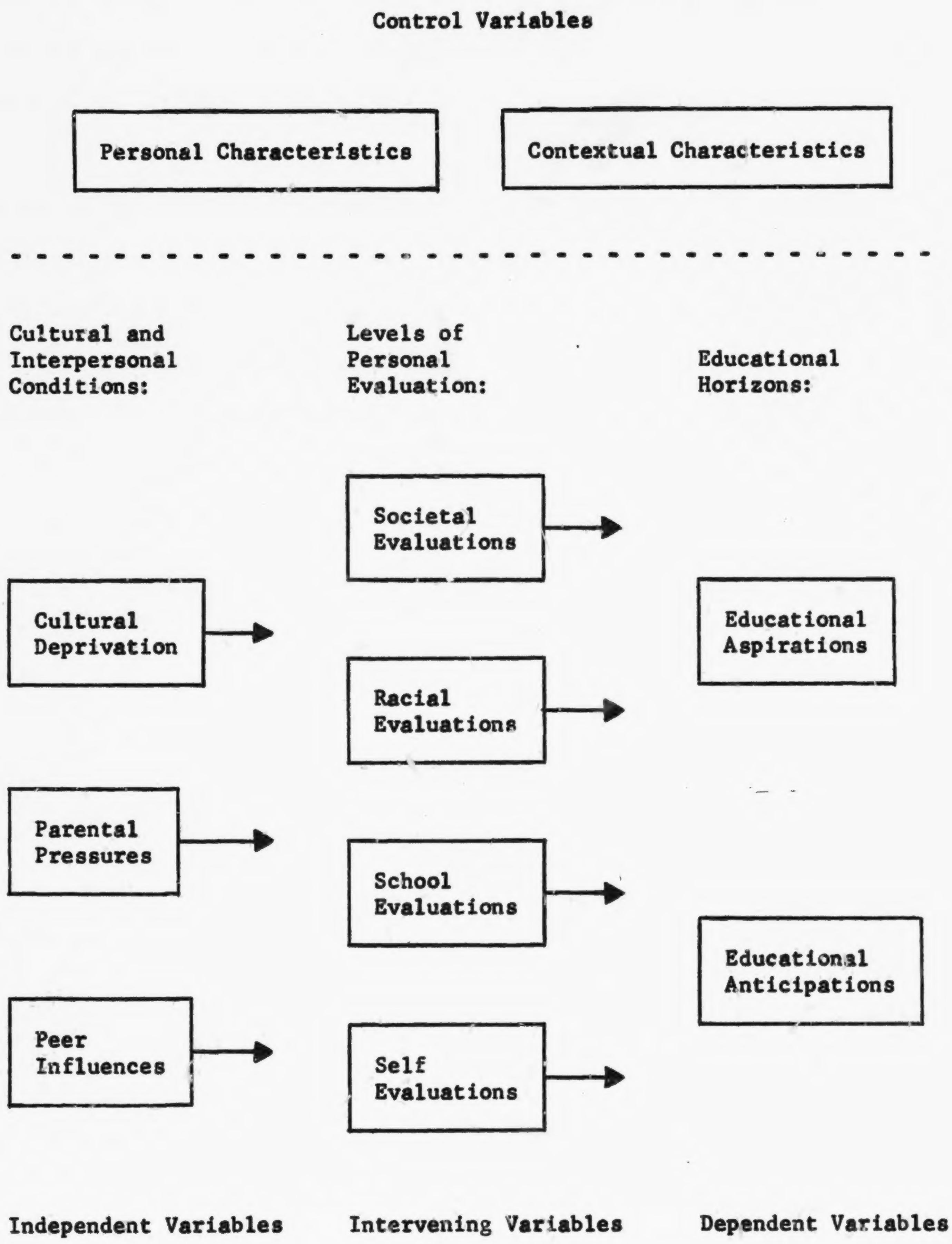
[6] In presenting the conceptual model for this study, attention must be called to the project model developed for analysis of "The Relationship between Poverty and Educational Deprivation" (see footnote 1, this chapter) and particularly to the expression of that model set forth in Brodie, Donald Q. "Structural and Interpersonal Influences upon Students' Educational Horizons," Unpublished Ph.D. Dissertation, Department of Sociology, University of Pittsburgh, 1968, pp. 40ff. That model was developed for a study of a general sample of high school students. The present model has been modified to permit an intensive examination within a lower class, Negro population. Additional concepts include cultural deprivation and racial evaluations. Social class is controlled, and subjective class identification was deleted from the present model on empirical grounds. For results of the general study see Brodie, _Op.cit._. The present analysis offers the possibility of a more appropriate test or verification of the project and Brodie model within a deprived, poverty population.

FIGURE I. THE GENERAL CONCEPTUAL MODEL


Control Variables
Personal Characteristics
Contextual Characteristics
Cultural and Interpersonal Conditions:
Levels of Personal Evaluation:
Educational Horizons:
Societal Evaluations
Cultural Deprivation
Educational Aspirations
Racial Evaluations
Parental Pressures
School Evaluations
Educational Anticipations
Peer Influences
Self Evaluations
Independent Variables
Intervening Variables
Dependent Variables

study is educational horizons. Conceptually, the phenomenon to be explained is composed of two, intimately related but distinct, dimensions. They are educational aspirations and educational anticipations. Educational aspiration is desire to achieve some amount and kind of education. This response is a personally valued goal, an object or state which the subject ideally would like to attain for himself. On the other hand, educational anticipation is the expected amount and kind of education. This response is what the subject foresees as likely or probable achievement in his case. It is an estimation of what his actual or real attainment will be. Thus, it should be clear that educational horizons are educational "futures" made up of desirable possibilities or aspirations and expected probabilities or anticipations.

Background or Study Context. As pointed out in the survey of relevant research literature, educational horizons --or either of its two dimensions--may be expected to vary according to numerous variables.[7] By selection of a population and a study background or context, some of these factors can be rendered null or constant prior to the study per se. While this is a methodologically and theoretically useful strategy for reducing the complexity of behavior so as to pin-point fundamental causal relations, it is important to know which potentially significant variables have been made common to all subjects, i.e., controlled prior to study. The population selected for analysis is composed of lower class Negro students in one, single-class, single-race high school within an urban ghetto in Pittsburgh, Pennsylvania. Such a choice automatically controls or makes constant the following factors which previous research has shown to be significant: (a) Social class of the subjects--controlled in this analysis by using lower class students.[8] (b) Social class composition of the school--rendered constant by selecting a school made-up of lower class students. (c) Inter-school variations--are ruled out by use of one school. (d) Race of the subjects--is controlled by dropping 48 whites and others from the group of 871. (e) Racial isolation or segregation of the school--held constant by the fact that 95 percent of the student body is Negro and resides within a large and predominantly black ghetto. (f) Rural-urban differences--controlled by use of a metropolitan, inner-city school attended by students from the immediate, surrounding neighborhood.[9]

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[7] Documentation or references already provided in this or the first chapter will not be repeated in the following pages except for new points or extensive elaboration on those previously made, however, new sources will be added as needed.

The Immediate Situation. The limitations established by the study context define the major parameters common to all of the subjects, but the immediate situation of each student includes: (a) the relevant cultural opportunities and advantages available to him and (b) interaction with persons of social psychological significance to him. It is a basic assumption that educational horizons are stimulated or constrained by these cultural and interpersonal conditions of the immediate situation. How are they conceptually defined?

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[8] The Hollingshead Two-Factor Index was employed to measure socio-economic class of each student's parents.

[9] Reasons for selection of this population were given in Chapter I. For an analysis of the general high school population done at the same time and in the same metropolitan area, see Brodie, Op. cit..

Cultural conditions which operate as independent or causal factors may be conceived of either as present advantages, opportunities, and skills that stimulate nehavior or as their absence or lack which constrains behavior by disadvantage or deprivation. Since the rudiments of the cultural heritage are the common property of the members of a group, any deprivation, relative absence, or lack in this realm is a departure from the normal or expected and deserves special emphasis. To provide this stress, the concept will be named cultural deprivation. It denotes normal sources of cultural stimulation, skills, or knowledge that are withheld from the subject. Deficiency in advantage or lack of opportunity for acquisition of fundamental cultural traits related to education are aspects of cultural deprivation.[10]

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[10] In addition to earlier references see: Deutsch, Martin. "The Disadvantaged Child and the Learning Process," Mental Health of the Poor, (eds.) Frank Riessman et al, New York: The Free Press, 1964. Deutsch, Martin. "Some Psychosocial Aspects of Learning in the Disadvantaged," Paper read at Boston University Developmental Conference on the Teaching of Disadvantaged Youth, 1964. Goldberg, Miriam "Factors Affecting Educational Attainment in Depressed Urban Areas," Education in Depressed Areas, (ed.) A. Harry Passow, New York: Columbia University Teachers College Press, 1965, pp. 68ff. Moynihan, Daniel P. "Education of the Urban Poor," Harvard Graduate School of Education Association Bulletin, XXI (Fall, 1967), p. 6. Riessman, Frank The Culturally Deprived Child, New York: Harper and Row, 1962.

Interpersonal conditions or interaction with persons who are the subject's significant others provide two fundamental primary groups with opportunities to shape his aspirations and anticipations foe education. These two groups are family and peers--particularly parents and school friends of the subject. Both parents and peers are potential models for behavior, either or both may be identified with and emulated. No other persons are as likely to serve as the references or anchors for school age youths. Parental desires and expectations for a given amount and kind of education exert a normative "push" toward compliance, thus, this dimension of interpersonal conditions is called parental pressures. The other dimension is named peer influences due to the "pull" which school friends' examples and plans for education have on the subject. Because of the more direct and visible effect of these interpersonal relations, a subject is apt to be aware not only of parental pressures and peer influences but also of the ability of these significant others to sanction whatever educational horizons he considers. Likely sanctions to induce conformity may range from ignoring, disinterest, or nominal acceptance, to ridicule or praise, or even to rejection or tangible reward. Different parents and different peers produce varying immediate situations; implicit in all of the foregoing discussion are the processes of differential association and differential socialization which jointly lead to variation in the educational aspirations and anticipations of subjects who otherwise may appear to be similar.[11]

Personal Disposition or Evaluations. A theoretical elaboration or explanation of the linkage between educational horizons as dependent response and the stimuli or constraints of the immediate situation is provided by evaluative predispositions. Although primarily derived and established within the cultural and interactive nexus of the immediate situation over time, the evaluative predispositions of the subject are personal, i.e., they have been internalized, made a part of the self, and serve to orient him to reality. As noted previously, personal disposition is a mixture of aspects which are cognitive or rational and non-logical, motivational or attitudinal. It includes values which are combined with perceptions of reality. Thus personal evaluations are results of a process of examination and judgment of factors which are potentially relevant in determining a response. Four levels of reality and evaluation are hypothesized as relevant to educational horizons. These levels include societal, racial, school, and self evaluations made by each students.

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[11] In addition to earlier references see: Bates, Alan and Babchuk, Nicholas "The Primary Group: A Reappraisal," Sociological Quarterly, 2 (July, 1961), pp. 181-191. Jones, Mary C. "A Study of Socialization Patterns at the High School Level," Journal of Genetic Psychology, 93 (1958), pp. 87-111. Herriott, Robert E. "Some Social Determinants of Educational Aspiration," Harvard Educational Review, 33 (Spring, 1963), pp. 157-177. Coleman, James S. The Adolescent Society, New York: The Free Press, 1962. Hess, Robert D. "The Adolescent: His Society," Review of Educational Research, 30 (February, 1960), pp. 5-12. Simpson, Richard L. "The School, the Peer Group, and Adolescent Development," Journal of Educational Psychology, 32 (September, 1958), pp. 37-41. Gottlieb, David and Houten Warren Ten. "The Social Systems of Negro and White Adolescents," Paper read at Annual Meeting of American Sociological Association, Montreal, September, 1964.

Anomie and alienation characterize many facets of contemporary minority life in the ghetto. Such conditions may lead students to seriously question or reject cultural goals or ends, the educational or personal means to them, or the alleged relevance and efficacy of these means for their social situation. Consequently, anomie or normlessness and feelings of powerlessness in shaping one's fate may underlie negative student evaluations of their society, race, school, or self--with depressing effects on their educational horizons. Conversely, belief in one' ability to direct his future toward personally valued goals is indicative of positive evaluations, affirmative of society, race, school, and self as worthy, deserving of trust and confidence. Positive evaluations are seen as facilitating educational horizons.[12]

Society is the broadest, most general or inclusive context of evaluations relevant to formation of educational horizons. The terms alienation and normlessness most often are used in reference to societal evaluations. Subjects make judgments concerning societal goals and means, stability or orderliness and direction of changes, and the possibility of personally rewarding, successful competition within the structures of their society.

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[12] The basic classic reference is to the work of Emile Durkheim. Contemporary references include: Merton, Op.cit., pp. 131-194. Parsons, Talcott The Social System, New York: The Free Press, 1951, pp. 254-271. Keniston, Kenneth The Uncommitted, New York: Delta Publishing Co., 1960. Clinard, Marshall B. Anomie and Deviant Behavior, New York: The Free Press, 1964. Riessman, Loc.cit.. Bullough, Bonnie, "Alienation in the Ghetto," American Journal of Sociology, 72 (March, 1967), pp. 469-478. Frazier, E. Franklin The Negro Family in Chicago, Chicago: University of Chicago, 1932, pp. 249-252. Pettigrew, Thomas F. A Profile of the Negro American, Princeton, N.J.: Van Nostrand, 1964, Chapter 8.

Although members of a dominant majority may not view their racial status as bestowing benefit and advantage, it is axiomatic that social identification of a group as a minority confers potential disadvantage, if not outright handicaps and liabilities. Minority status may bear upon the entire range of evaluative levels from societal perspectives to the individula's picture of himself. The shifting role and meaning of race in the current scene make black subjects' racial evaluations highly pertinant to their educational horizons. How do they weigh their race? Is the subject alienated from his own racial group, does he see it negatively, as a ponderous handicap or oppressively heavy liability? Or is his reaction more positive, marked by identification with contributions of his people, and typlified by feelings of worth, merit, or pride in his race as a social and personal asset?[13]

The third level of evaluation is concerned with the school as the institution responsible for instilling formal knowledge and fundamental social skills. Successful functioning of the school minimally requires adequate preparation of students either to pursue further education or to participate as competent members of society. Not only do these basic or principle functions of the school enter into student opinions on the worthiness of education in general, but they are part of the particular experiences of the students. Pleasantness, interest, and relevance of the educational process or boredom, unhappiness, irrelevance, and frustration in the day-to-day school experiences are existential grounds of the subjects' school evaluations. Unrewarding experience may lead not only to negative evaluation of the school but also of its educational aims just as personal successes in school may lead to positive evaluations both of the school and of its goals.[14]

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[13] In addition to previous references see: Grossack, Martin M. "Group Belongingness among Negroes," Journal of Social Psychology, 43 (1956), pp. 167-180. Ianni, Francis H. "Minority Group Status and Adolescent Culture," (ed.). David Gottlieb and Charles E. Romsey, The American Adolescent, Homewood, Ill.: Dorsey Press, 1964. Moynihan, Op.cit., p. 4ff.

The self is the fourth evaluative level. In contrast to the generality and inclusiveness of societal evaluations, self evaluations are personally focused and immediate as the subject appraises himself as an object. Perceptions of the subject's traits are combined with attitudes concerning the worthiness, value, or merit of these characteristics. A self image or picture of the self marked by positive feelings for personal abilities and assets is expected to facilitate educational horizons. Conversely, limited educational horizons are expected if a subject's self evaluation is dominated by negative conceptions, low esteem, feelings of inability.[15]

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[14] In addition to previous references see: Cutright, Philip "Students' Decision to Attend College," Journal of Educational Sociology, 33 (February, 1960), pp. 292-299.

[15] In addition to previous references see: Herriott, Robert E. "Some Social Determinants of Educational Aspiration," Harvard Educational Review, 33 (Spring, 1963), pages 157-177. Ausubel, David P. and Ausubel, Pearl "Ego Development among Segregated Negro Children," Education in Depressed Areas, (ed.) A. Harry Passow, New York: Columbia University

Personal predispositions function to shape subjects' social behavior by intervening to modify or alter the effect of various stimuli or constraints on them. In this connection four levels of evaluation by subjects of their society, race, school, and self have been presented as fundamental to their educational aspirations and anticipations, i.e., to their educational horizons. The general conceptual model in Figure I shows two sets of conditions or control variables that are dispositional in that they may alter or modify the basic independent--dependent relationships. The two sets of controls include personal and contextual characteristics.

Personal characteristics are attributes or qualities of individuals that place them in broad social categories in the society. Sex and age are categories believed to be most relevant to educational horizons. Behavior is varied by sex-linked roles and by age-linked roles. Both types of roles are related to occupational choice which not only tends to be sex differentiated but also is apt to change with increasing maturity of the subject. Since education aids learning of sex and age roles and inasmuch as education is a requisite for numerous occupations, it is expected that the subjects' educational horizons will be conditioned by sex and age.

Contextual characteristics are attributes of students that indicate their placement within the school as a social

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Teachers College Press, 1965. Deutsch, Martin "The Disadvantaged Child and the Learning Process," Op.cit.. Rosenberg, Morris Society and the Adolescent Self-Image, Princeton: The Princeton University Press, 1965.

system. The relevant qualities are grade and course of study or track. Grade represents the subject's age, the length of time spent in a school system, and academic accomplishments. The track or course of study in which the student is enrolled indicates not only his general plan for subsequent education or work but also the school's judgment of his scholastic abilities, social behavior, and academic promise. Both of these contextual traits are related to the immediacy of decisions regarding occupation and further formal education. Furthermore, insofar as grade and track denote a number of relatively distinct groupings, they create contexts within which differential association with students, staff, and curriculum will take place and, as a result, differential socialization will occur. It is anticipated that grade and course of study or track will condition students' educational horizons.

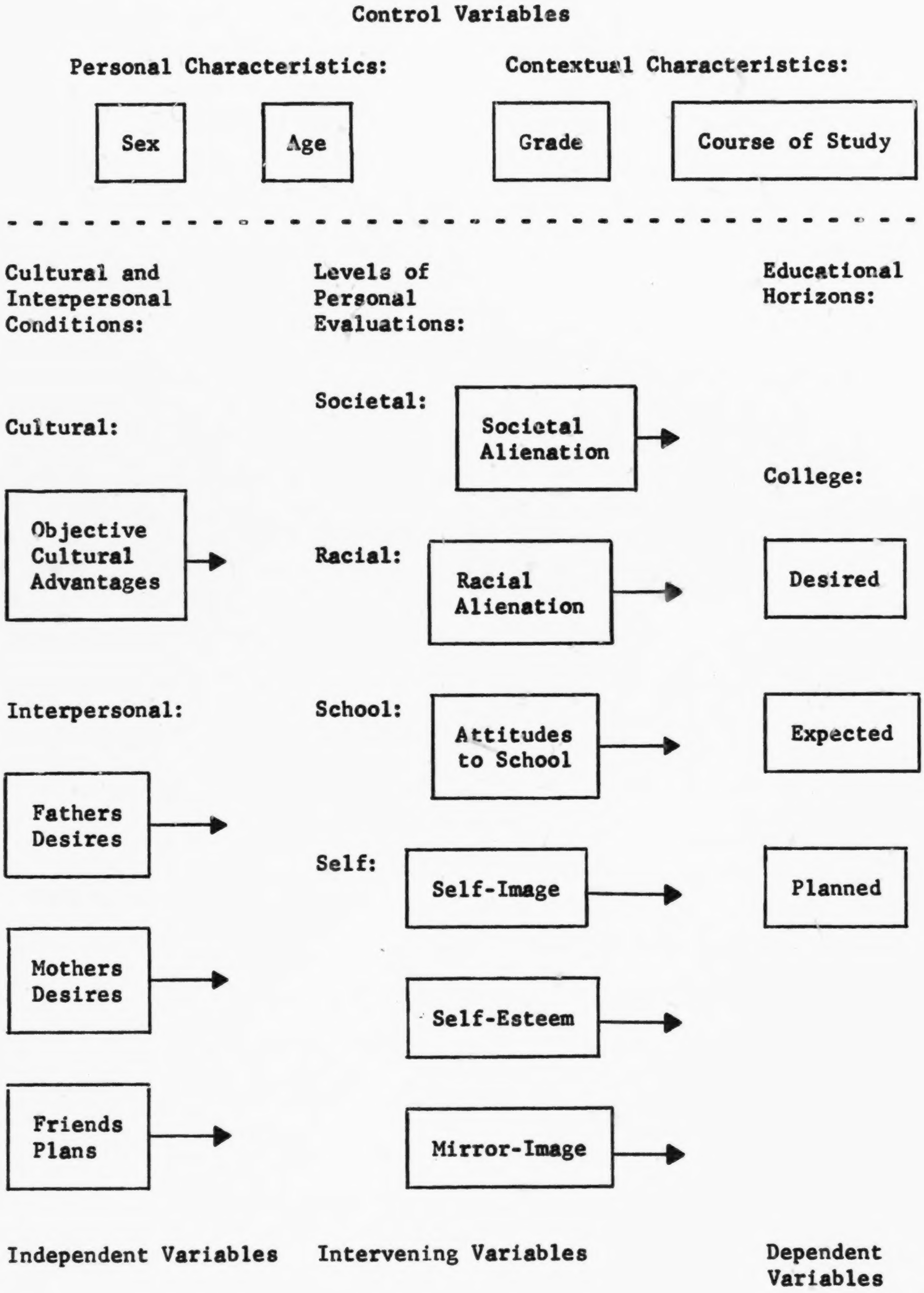
The general conceptual model, shown in Figure I and presented verbally and discussed in the preceeding pages, is an attempt to set forth a theory which will permit solution of the problem given in Chapter I. That is, are educational horizons of lower class, Negro high school students a function of their immediate cultural and interpersonal situations, and, if so, can the relationship be elaborated and explained as a function of their personal evaluations? Although such a theory does not attempt to specify necessary relationships between the three major sets of concepts, it may contribute to an advance of knowledge by clearly indicating conditions which are sufficient to account for the resulting horizons.

## B. Operational Model

The general conceptual model serves as a theoretical basis or foundation of the more specific and operationalized model presented in Figure II on the next page. Names of the empirical indicators or measures are shown in the operational model. The related concepts are located in about the same place in Figure I. The two figures are organized to facilitate comparisons between the two models. The operational or working definitions of all indicators are in Appendix B.

Dependent Variables or Effects. The major phenomenon to be examined and explained is educational horizons. It has been conceptualized as having two fundamental and distinctly different dimensions--educational aspirations and educational anticipations. Educational aspirationa are defined operationally in terms of the kind or level of formal schooling which the subject would like or wants to attain during his lifetime. The indicator of educational aspirations is called college desired. Educational anticipations are represented operationally by estimates of the kind or level of formal schooling which the subject expects as a realistic or probable maximum for his lifetime. The working definition or measure of educational anticipations is named college expected. The two indicators were dichotomized, as their names suggest, to show whether or not college is desired and whether or not it is expected. The results then were combined to establish an educational horizons typology, college--desired/expected.

FIGURE II. THE OPERATIONAL MODEL


Control Variables
Personal Characteristics:
Contextual Characteristics:
Sex
Age
Grade
Course of Study
Cultural and Interpersonal Conditions:
Levels of Personal Evaluations:
Educational Horizons:
Societal:
Societal Alienation
Cultural:
College:
Objective Cultural Advantages
Racial:
Racial Alienation
Desired
Interpersonal:
School:
Attitudes to School
Expected
Fathers Desires
Self:
Self-Image
Planned
Mothers Desires
Self-Esteem
Friends Plans
Mirror-Image
Independent Variables
Intervening Variables
Dependent Variables

One advantage of using an educational horizons typology instead of two separate measures is that both dimensions of the dependent variable are represented simultaneously. A pragmatic advantage is that one variable is easier to handle than two. However, the most important reason is that combining them increases dependent variable reliability. It should be noted that all items employed in this connection are clear, use simple words, and have face validity. Thus, high school students should have no difficulty giving consistent or reliable responses to dependent variable items.[16]

An alternative indicator of educational horizons is called college planned. For those students that plan to go to college upon graduating from high school rather than pursuing other education, working, entering the military, etc., this measure is fairly comparable to those who both desire and expect college in the horizons typology. Those planning to attend college upon graduation are 37 percent of the population on that item while 36 percent of the population on the typology both desire and expect college. Among those both desiring and expecting a regular four year college education 78 percent already have plans to attend such an institution, 8 percent will go to a junior college first, and 6 percent have to work or face military service as prior necessities.

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[16] The items used to measure college desired, college expected, the educational horizons typology, and their marginal distributions are given in Appendix B, p. 252. Further details on the typology, its dimensions, and their relation are given in Chapter III, pp. 47-51.

The balance of 8 percent either plan on vocational or other training after graduation or they lack post graduation plans. These statistics do not measure precisely or demonstrate the degree of consistency, however, they clearly suggest reasonable reliability in student responses to two different sets of indicators of educational horizons.[17]

If it can be assumed that recent graduating classes of this high school are similar to its present students, an independent indicator of reliability and predictive validity is available through the school records. Of the students in the last four graduating classes, 33 percent actually were enrolled in college or university. This is strikingly close to the 36 percent of the present student body who both desire and expect college according to the horizons typology.

Independent Variables or Causes. In the conceptual model the basic cultural condition defining each subject's immediate situation was called cultural deprivation. In the operational model the name of the measure that points to this condition is objective cultural advantages. Inasmuch as the home and the school usually are the dominant sources of cultural stimulation of the young and since the subjects go to the same school, the working definition is focused on the home environment of each student. Therefore, as the name of the measure implies, objective cultural advantages are cultural objects or cultural sources of advantage that are found in students' homes. Their presence potentially stimulates interest in learning and provides skills and knowledge that are useful not only in the education process but which also serve to orient students to life in the world beyond the high school and their family of origin. Cultural deprivation is indicated by the absence or relative lack of objective cultural advantages. The operational definition is based on an inventory of cultural sources or objects in the home: books, newspaper, encyclopedia...[18]

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[17] The item used to measure college planned and its marginal distribution are given in Appendix C, p. 258.

The interpersonal conditions or relations that were conceptualized as defining the subject's immediate situation are parental pressures and peer influences. The operational indicators of parental pressures are called fathers desires and mothers desires. Students were asked to specify for each parent the amount or kind of education which they felt their parents desired for them or wanted them to acquire. Then these items were combined to form a single measure of parental pressures named parents pro-college. Thus, it is possible to indicate whether both, one, or none of the parents desire or pressure them to get a higher education. An advantage of this combined measure is that it permits use of cases where a parent is missing or the attitude is not known to the student.[19]

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[18] The items used to measure objective cultural advantages and the marginal distributions are given in Appendix B, pp. 240-241.

[19] The items used to measure fathers desires, mothers desires, and parents pro-college and their marginal distributions are given in Appendix B, p. 242.

In the general conceptual model peer influences were presented as important to educational horizons through their role of helping to establish the immediate situation of each subject. Of the full range of peers, significant others are closest to the subject, on the most intimate terms with him, and the most likely to have a marked impact on his behavior. So it was decided to concentrate on the subject's friends as the key peer grouping. Since friends' educational horizons and the direction of their example or "pull" on the subject are both included in their post graduation plans, it was concluded that friends' plans would be a good indicator of peer influences. The working definition asks the subject whether his friends plan on college after high school, on other kinds of formal education, or for non-educational activities like working or military service. Where friends have not as yet made plans for after high school or these plans are unknown to the subject, it can be assumed that friends plans do not influence or pull the subject toward high educational horizons, i.e., to desire and expect college.[20]

Intervening Variables or Disposition. Four levels of reality and evaluation were discussed in the conceptual model as critically related to students' educational horizons. As the operational model shows in Figure II, the four evaluative levels are the subject's society, race, school, and self. Indicators of various student attitudes will be used to establish measures for each of these areas which are expected to alter or modify the basic relationships between educational horizons and the independent variables.

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[20] The item used to measure friends plans and its marginal distribution are given in Appendix B, p. 243.

Societal alienation is the label used to identify the working definition of societal evaluations. The subject may be alienated or repelled by what he sees as disorder or lack of stability in society. Or his attitudes may lead him to approve of what he sees as orderly, productive, and predictable change in the larger social order. The operational definition also includes items that reflect on the students' feelings about the promise of the future and the reliability or trustworthiness of other members of the society.[21]

Racial evaluations are operationally represented by a measure called racial alienation. The indicators here are similar to those employed for societal alienation, however, the emphasis is placed on the subject's attitudes toward his racial group. The working definition stresses whether the reactions are predominantly of handicap, lack of opportunity, and mistreatment or are primarily on pride, contributions, and chances to participate responsibly in social life.[22]

Attitudes toward school is the name applied to the operational definition of the concept, school evaluations. These attitudes refer to the students' judgments concerning the school as an educational institution. More specifically, the items permit an expression of feelings about the school's effectivity and interest in educating or preparing students for life, whether these efforts by the school are worth it to the students or not, and the degree to which the means used by the school are interesting and liked by the students.[23]

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[21] The items used to measure societal alienation and the marginal distributions are given in Appendix B, p. 244f.

[22] The items used to measure racial alienation and the marginal distributions are given in Appendix B, p. 246f.

Self evaluations are operationally represented three different ways. The empirical measures are named self-image, mirror-image, and self-esteem. Each one requires treatment of the self as an object and involves feelings or attitudes as well as cognitions. Self-image is operationally defined by the subject's responses to specific or concrete adjectives that describe socially significant attributes of the self as seen by the subject. Mirror-image is defined by the same set of adjectives, but the subject takes the role of the other to describe himself as he thinks his teachers see him. Instead of using specific adjectives particularly appropriate to the classroom and education, the Rosenberg self-esteem items are first-person phrases or short statements of a more general relevance. They include judgments of personal worth, pride, satisfaction, and efficacy. These three indicators of self evaluations are expected to be highly correlated and to have substantially similar effects on educational horizons.[24]

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[23] The items used to measure attitudes toward school and their distributions are given in Appendix B, pp. 248f.

[24] The items used to measure self-image and their distributions are given in Appendix B, pp. 250f. The items used

In addition to the four levels of evaluative dispositions just discussed, Figure II of the operational model also points out personal and contextual characteristics as a basis for defining major population subgroupings which may be differently predisposed to the hypothesized relationships. The personal characteristics are sex and age. Grade and course of study or academic track are the contextual characteristics. The operational definitions of these four control variables need little comment beyond the remarks made in presenting the conceptual model and the details to be found in the appendix. In that earlier presentation, it was noted that age and grade are conceptually similar though not identical. However, if empirically the relationship between the two is sufficiently strong and there are no serious anomalies between them, then either measure may be regarded as the indicator of the other as well as of itself. Such is the case with age and grade. The empirical evidence is to be found in Table 2.3, Appendix D. Grade will be used in the remainder of this volume to represent both grade and age.[25]

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to measure mirror-image and Rosenberg self-esteem and their distributions are given in Appendix C, pp. 254ff. Details on the latter index are found in Rosenberg, Op.cit.. Empirical results with the three measures tend to confirm expectations. Since the differences on educational horizons were inconsequential and given the interchangability of indices, self-image was selected to represent self evaluations. For each of these variables by educational horizons, see Tables 2.1, 2.2, and 3.13 in Appendix D, pp. 259ff. and 275.

[25] The items used to measure sex, age, grade, and course of study or track and their distributions are given in Appendix B, pp. 238-239.

## C. Research Hypotheses

From the conceptual model presented and operationalized in the preceding pages, the following major research hypotheses have been derived. The usefulness of the conceptual model will be tested in the remainder of this work by examination of these hypotheses.

1. Cultural Conditions Hypothesis:
   The more the objective cultural advantages of students, the higher their educational horizons.

2. Interpersonal Relations Hypotheses:
   a. The higher the parents' desires for students' education, the higher the students' educational horizons.
   b. The higher the peers' educational horizons, the higher the students' educational horizons.

3. Personal Evaluations Hypotheses:
   a. The less the students' societal alienation, the higher their educational horizons.
   b. The less the students' racial alienation, the higher their educational horizons.
   c. The more positive the students' attitudes toward school, the higher their educational horizons.
   d. The more positive the students' self-image, the higher their educational horizons.

4. Multifactor Hypotheses:
    a. Cultural Conditions and Personal Evaluations:
        (1) The more the objective cultural advantages and the less the societal alienation, the higher the students' educational horizons.
        (2) The more the objective cultural advantages and the less the racial alienation, the higher the students' educational horizons.
        (3) The more the objective cultural advantages and the more positive the attitudes toward school, the higher the students' educational horizons.
        (4) The more the objective cultural advantages and the more positive the self-image, the higher the students' educational horizons.
    b. Parental Pressures and Personal Evaluations:
        (1) The higher the parents' desires and the less the societal alienation, the higher the students' educational horizons.
        (2) The higher the parents' desires and the less the racial alienation, the higher the students' educational horizons.
        (3) The higher the parents' desires and the more positive the attitudes toward school, the higher the students' educational horizons.
        (4) The higher the parents' desires and the more positive the self-image, the higher the students' educational horizons.

c. Peer Influences and Personal Evaluations:

(1) The higher the peers' educational horizons and the less the societal alienation, the higher the students' educational horizons.

(2) The higher the peers' educational horizons and the less the racial alienation, the higher the students' educational horizons.

(3) The higher the peers' educational horizons and the more positive the attitudes toward school, the higher the students' educational horizons.

(4) The higher the peers' educational horizons and the more positive the self-image, the higher the students' educational horizons.

## D. Research Procedures

The aim of this study is to describe and to explain the educational horizons of lower class Negro youth. Stated most pointedly: Why do some of these socially depressed and deprived youngsters desire and expect to go to college? To answer this question and to explain the findings, a population of lower class, Negro high school students was located. The reasons for this selection and factors entering into it have been presented both in the introduction and in earlier sections of this chapter. The population as a whole may be described as lower socio-economic class, black students who attend a single-class, single-race junior-senior high school and who live in a large, predominantly Negro, urban ghetto. These subjects and their inner-city school are loacted in metropolitan Pittsburgh, Pennsylvania. A detailed item-by-item description of this population's responses on the main study variables is given in Appendix B with the operational definitions already discussed in this chapter.

When the information for the present study was collected in April, 1967, there were 1167 students enrolled in the high school selected. Despite the fact that the school set aside a period for administration and a second period on a later date, 146 students were absent on both days, leaving an attending population of 1021 students. From this population 876 completed and usable questionnaires were obtained. In other words a sample of 86 percent resulted; the sampling attrition was 14 percent. If this sample contains any bias it is toward senior high school students and the regularly enrolled students, i.e., a somewhat larger proportion of the younger students and special students were not included, but the discrepancies do not appear to be serious. Inasmuch as the focal concern of the present study is on why some Negro students from the lower class want and expect college, slight over representation (if any) of senior highs and regularly enrolled students should not constitute a problem of any consequence. From the 876 there were 5 records discarded due to keypunch errors and 48 discarded either because they were non-Negroes or because their race was not specified. Thus, information is available on 823 black respondents.

The data were collected by means of a survey questionnaire consisting of 215 precoded items. The questions were derived from a review of the related literature, and some of them were written specifically for the present study. The primary substantive basis for selection was relevance to the conceptual and operational models of the study.[26]

It was felt that each of the original items or questions was clearly, simply, and directly worded and that they could be characterized as having face validity. Nonetheless, the instrument was pretested to help assure completeness and relevance, clarity and freedom from ambiguity, and reliability of items. Some questions were reworded and the instrument was given a more open, less crowded format. Pretesting on a group of 125 students with poverty and non-poverty backgrounds from another high school indicated that the subjects could be expected to complete the questionnaire in 50 minutes.

The actual administration of the instrument was in a special 70 minute homeroom period. It was group-administered by the homeroom teacher to all students present. Two days later, the special session was repeated for those that had missed the previous administration. Both on the cover of the questionnaire and in the oral instructions prior to administration the students were told to make no identifying marks on the instrument, and they were assured of anonymity of their responses. The teacher co-operation was good, and almost all students made an attempt to complete all of the questionnaire items.

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[26] The questionnaire contained more items than were used in this analysis. The reason for this is the present study is part of a larger project. In this connection see footnote 1 at the beginning of this chapter. The specific questions or items used in the present analysis are to be found in Appendix B as parts of the operational measures which they define. For a report of the larger project on a similar topic, done at the same time, in the same metropolitan area, but on the general high school population as a whole, see Brodie, Op.cit.. Sources of the questionnaire items appear in Appendix A, p. 236.

After administration each questionnaire was cleaned, and the few items which were not precoded were coded. Homeroom by homeroom a record was kept to establish not only an exact count of questionnaires expected less those received, but also to be able to verify teacher and group co-operation and to permit identification of any bias in returns. In the next step of processing, the responses on each questionnaire were keypunched onto Hollerith ("IBM") cards for electronic data processing. Explicit cleaning and keypunching instructions were written and used to minimize errors. A "1 in 20" check of questionnaires from uncleaned state to the finished cards supplemented supervision of these steps and added to the confidence about the results. A further error check was made on all of the final Hollerith cards by computer. This step was in the form of range and consistency checks on each of the study variables. Finally, the data from the Hollerith cards were transferred to IBM magnetic tape for analysis.

Preliminary analysis included obtaining marginal distributions on each item, collapses and recodes where helpful, new marginals on these latter items, dropping items that were too highly skewed to be useful, and combining items to create scores for the study variables. Furthermore, these new variables were collapsed and recoded. Most of the major steps as well as the final results of this preliminary analysis can be seen mirrored in Appendix B.

After all scores and measures had been put in their proper form, the computer was used to punch an analysis deck of one Hollerith card per subject. As before, a sample was taken and the cards were checked or verified. No error was found. This deck is the basis of the work that is presented in the remaining chapters of this study.

The principle procedures to be employed are multivariate or intervening variable analysis with "break down" tables providing statistical controls on the relationships to be tested.[27] In this study simple and multivariate cross-tabulations are not only the chief analytical technique to be used, but they are also the primary means of presenting the empirical findings. The written text is to be an interpretive supplement or elaboration of the findings that are presented in the tables of Appendix D.

The relevant statistical measures reported with the tables or employed in discussing them include: Chi-square, the "p" or probability of Chi-square, Cramer's V, percentage, and "PD" or percentage difference. The latter measure is a simple difference between two percentages. Percentages used in the tables will be column totalled, but instead of "100%" being printed at the foot of each column, the number of subjects in that category will be indicated in brackets. The only other technique or statistic which may need comment is Cramer's V. A number of better known correlational measures are available, but none seemed to have such general relevance or freedom from major drawbacks. Because of the nature of the data Pearson's r in its several forms was rejected. The contingency coefficient, Pearson's C, is widely used and is appropriate to nominal and ordinal data, however, its optimal value is influenced by degrees of freedom. Thus, the use of C makes it very difficult to compare the correlations when the number of cells vary from table to table. This problem is corrected by Cramer's V which has the advantages of C as being a relatively conservative measure of association for nominal and ordinal variables--conservative in the sense of approximating or slightly underestimating the values which would obtain if Pearson's r were appropriate.[28]

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[27] Lazarsfeld, Paul F. and Morris Rosenberg, (eds.). The Language of Social Research, New York: The Free Press, 1955. Stouffer, Op.cit., pp. 68-112. Hyman, Herbert H. Survey Design and Analysis, New York: The Free Press, 1955.

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[28] Francis, Roy G. The Rhetoric of Science, Minneapolis: University of Minnesota Press, 1961. Goodman, Leo A. and William H. Kruskal, "Measures of Association for Cross Classification," Journal of the American Statistical Association, XLIX (December, 1954), pp. 732-764 and their "Furthur Discussion and References," Op.cit., LVII (March, 1959) pp. 123-163. Somers, Robert H. "A New Asymmetric Measure of Association for Ordinal Variables," American Sociological Review, XXVII (December, 1962), pp. 799-811. Selvin, Hanan C. "A Critique of Tests of Significance in Survey Research," American Sociological Review, XXIII (August, 1958), pp. 519-527 (includes responses by Gold and others; actually a series of exchanges over several issues occur and are worth reading).

The foregoing pages have presented and discussed the principle research procedures including: background characteristics of the population, the sample of the population and sampling attrition, instrument construction and pretesting, administration of the instrument, coding--cleaning--keypunching of the data, preliminary analysis, and the tabular and statistical techniques to be used in the main analysis. The first two sections of this chapter established a conceptual model and an operational model (see Figures I and II), which, in turn, served as sources of the research hypotheses set forth in the third section. It will be helpful to refer to these hypotheses again since they link the models to the empirical findings to be presented in the main analysis. A summary of the plan of analysis includes:

(1) Analysis of the dimensions and internal relations within the educational horizons typology, its distribution within population subgroups, and the effects of personal evaluations on educational horizons (see personal evaluations hypotheses 3:a-d, p. 38 in this chapter). Chapter III.

(2) Analysis of the effects of cultural deprivation on educational horizons, the relationship within population subgroups, and the effects of personal evaluations on the relationship (see cultural conditions hypothesis 1, and multifactor hypotheses 4:a, pp. 38-39). Chapter IV.

(3) Analysis of the effects of parental pressures on educational horizons, the relationship within population subgroups, and the effects of personal evaluations on the relationship (see interpersonal relations hypothesis 2:a, and multifactor hypotheses 4:b, pp. 38-39). Chapter V.

(4) Analysis of the effects of peer influences on educational horizons, the relationship within population subgroups, and the effects of personal evaluations on the relationship (see interpersonal relations hypothesis 2:b, and multifactor hypotheses 4:c, pp. 38 and 40). Chapter VI.

# III. EDUCATIONAL HORIZONS

The General conceptual model asserted that cultural and interpersonal conditions, various personal and contextual characteristics, and levels of personal evaluation are relevant to students' educational horizons. That model was operationalized and discussed in the preceding chapter; the working definitions and their marginal distributions are to be found in Appendix B. Questions concerning the impact of cultural and interpersonal conditions on students' educational horizons will be deferred until later. The purpose of this chapter is to answer three questions: (A) How are the dimensions of the educational horizons typology distributed and related empirically? (B) What are the connections between personal and contextual characteristics of students and their educational horizons? (C) How are the various levels of students' personal evaluations related to their educational horizons?

## A. Internal Relations

The conceptual dimensions of educational horizons are educational aspirations and educational anticipations. Their operational indicators are college desired and college expected. The two indicators were combined to form a single dependent variable, "college--desired/expected," the educational horizons typology. In regard to the foregoing, the following will be examined: (1) the distribution of each dimension, (2) the empirical relationship between the two, (3) the educational horizons typology.

1. Dimensions of Educational Horizons

a. Educational Aspirations.[1] What are the educational desires or aspirations of the lower class, Negro high school students being studied? To what extent do they value or wish for a higher education? An inspection of the marginals reveals that 22 percent want a high school education or less. A junior college education, business school, or vocational training after high school was preferred by 26 percent of the students. Slightly over half (52%) expressed desires to graduate from a regular four year college. These figures are in striking variance with the popular impression that the lower class in general, and the black population in particular, does not value education. It seems likely that the present generation of Negro students believes that education is an important means to social mobility. At least in their educational desires most of the black students are reflecting the general American culture's high evaluation of formal education. Whether their lower class and racial minority status greatly reduces the amount of education which these students anticipate or not, remains to be seen.

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[1] The measure of educational aspirations appears in Appendix B, p. 252, as the first part of college--desired/expected.

b. Educational Anticipations.[2] The second dimension of educational horizons is an estimate of the probable, likely, or expected level of acadmic attainment during the life of each student. Although some upper-middle or upper class boys and girls may expect to be subjected to more formal schooling than they wish, in a group marked by both social and cultural deprivation, it is more reasonable to assume that the amount of education anticipated lags behind the amount desired. For the poverty group as a whole, this seems to be the case. While 52 percent of the students want a college education, only 39 percent expect to attain this goal. Consequently, many of them expect to stop at lower than desired levels of academic accomplishment. A junior college or a business or vocational school represents the highest education anticipated by 30 percent of the students studied, and 31 percent believe that they probably will conclude their formal school work with high school. Although there is a clear discrepancy between the students' aspirations and anticipations for college (13PD), it should not obscure the basic observation that the students are relatively high on both dimensions of educational horizons. In sharp contrast are the students' parents. Only 6 percent of the mothers and 8 percent of the fathers were reported as having any education beyond high school. Apparently their sons and daughters expect a larger stake in American life.

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[2] The measure of educational anticipations appears in Appendix B, p. 252, as part of college--desired/expected.

### 2. Relationship between Aspirations and Anticipations

Table 3.1, Appendix D, provides the information for an analysis of the connection between students' educational aspirations and anticipations. As expected, the relation is positive and very strong (V=.58). Among those who desire a college education, 70 percent expect to obtain one. For the students who aspire to a junior college, business school, or vocational training beyond high school, somewhat more are in the position of anticipating realization of their goal (73%). Among those with a low level of educational desires, 78 percent expect a like amount of education. The fact that within the low desires group (22%) and the medium desires group (2%) some students expect more education than they want, suggests the operation of parental and other pressures pushing these students toward higher attainment. A numerically much more sizeable group of students aspire to college but do not have expectations of realizing those desires (31%). It seems to be likely that inadequate financial resources, negative self evaluations, feelings of racial unworthiness, alienation or lack of confidence in the larger society can account for a substantial amount of this discrepancy between college aspirations and anticipations. Most of these issues will become matters of investigation in the three chapters to follow.

### 3. Educational Horizons Typology

The distribution of students on each dimension of educational horizons has been presented and discussed above.

It has been established that they are empirically, as well as conceptually, interrelated in a very significant manner. Since the primary theoretical interest of this study is to explain why lower class, Negro youths aspire to and anticipate a college education, a single measure of educational horizons was established. The typology combining indicators of students' educational aspirations and anticipations will be known as college--desired/expected, and it is located in Appendix B, page 252, as is its marginal distribution.

College is both desired and expected by 36 percent of the students; they are high on the educational horizons typology. The mixed or medium poistion within the typology contains 18 percent of the high school youth; they either desire or expect a college education. It is this group that manifests the discrepancy between educational aspirations and anticipations which was discussed in the immediately preceding pages. Lowest on educational horizons are the 46 percent who neither desire nor expect to obtain a regular, four year college or university education.

To facilitate the analysis of factors associated with high educational horizons, primary attention will be focused on students who both desire and expect higher education in a four year college or university. It could be argued that the medium and low scores on the horizons typology are merely residual, and thus should be combined. However, students characterized by discrepancy are theoretically different from those who are unequivocally low, and they may prove to be empirically different. If these differences do occur, they may be suggestive of insights relevant to the development of educational horizons.

## B. Distribution within Population Subgroups

In the second chapter, various personal and contextual characteristics of students were identified as bases of groupings within which educational horizons may be differentially distributed. What are the connections between students' demographic traits or academic statuses and their educational horizons? Do distributions of college desires and expectations differ significantly by major population subgroupings? First, differences by sex, grade/age, and course of study or track will be sought and evaluated. Then the relations between each of these factors and college--desired/expected will be examined while controlling on each of the other characteristics.

### 1. First-Order Marginal Distributions

Are there significant differences in the education aspired to and anticipated by boys and girls? Does the age or grade of students lead to important differences in the way they feel about their educational futures? To what degree are variations in track or course of study associated with students' hopes for college? Answers can be found for each of these questions by examination of Appendix D, Tables 3.2 through 3.6.

a. Sex. Examination of Table 3.2 discloses a weak but significant relationship between sex and educational horizons. Among these lower class high school students, the males are only slightly more likely to both desire and expect a college education than the females are (39 to 33%). Conversely, the boys also are less likely to be low on the three-category horizons typology (41 to 50%).

Possibly one source of this tendency is students' anticipation and preparation for adult sex roles vis-a-vis family and occupation. More specifically, the boys' role-sets tend to be dominated by occupational concerns and the preparation for this function. Also this basic or primary orientation of the males toward work is reinforced by the future family role of bread-winner. The females' role-sets tend to be dominated by house-wife and maternal considerations, and occupations outside of the family usually are of secondary importance. Even if girls desire or have to work outside of the home after high school, their basic orientation is likely to be toward relatively short-term employment until they marry or toward part-time work to supplement the husband's income. Differences in adult sex roles for males and females are anticipated at least by many of the older high school students, and their preparations for these roles will differ. The boys must prepare for occupational roles which often demand more education than would be necessary for girls who are planning on becoming home-makers. Future sex roles and the preparation for them seem to be reflected in the differing educational horizons of these high school boys and girls; but the differences observed are small.

b. Grade. The very substantial relationship of grade and age, discussed in the preceding chapter, makes it feasible to employ either of the two measures to represent both. No statistically significant difference was found, and it was decided that grade would be used as an indicator for age as well as of itself.

Do differences of age or grade make for variations in students' educational horizons? The data relevant to the question are provided in Tables 3.3 and 3.4. The relationship between grade and college--desired/expected is weak in both tables (V=.08 and .01), and within each table, chance is a sufficient explanation of the results. In other words, age and grade do not seem to account for students' views of their educational futures; horizons do not vary significantly from one group to another.

Despite the evidence just presented, it would be a mistake to move on to the next problem at this point. Careful inspection of Table 3.3 reveals some definite patterns in responses that are interesting. Among the junior high school students there is a steady decline in frequency of students desiring and expecting college. There is a steady increase through senior high school. Students who neither desire nor expect college systematically complement these trends. In view of this patterning, it is reasonable to wonder if grade differences between those who are high on educational horizons are significant within junior high and within senior high. A t-test confirms that the number who desire and expect college significantly (.02) declines among junior high students. Likewise, the test shows the senior high increase to be significant (.05).

Uncritical acceptance of the test of Table 3.3 (as a whole) would have obscured these differences whic exist within the two groups, since they cancel each other out as Table 3.4 makes clear. Unfortunately, due to small subsample sizes, grade cannot be used as an uncollapsed control through the rest of the study. It will be necessary to use the less discriminatory collapsed version of grade employed in Table 3.4. However, given the decline in number of junior highs desiring and expecting college, and the increasing frequency of these responses among senior highs, what is the explanation or interpretation of the pattern?

Apparently, junior high school students initially tend to reflect the generally high social evaluation of a higher education, but the longer they are in junior high, the more opportunity they have to experience difficulties in learning, bad teaching, irrelevant or uninteresting subject matter, and other negative school experiences. Struggling with the on-set of adolescence, these youths are not likely to be very responsive to parental admonitions to work hard in school. They are likely to respond to peers who also are wrapped-up in the problems of early adolescence rather than in education per se. So also, track is merely anticipated and thus does not produce differential association supporting educational horizons of the junior highs. The importance of education for future sex roles may not have impressed them because they are preoccupied with their present sex roles. The progressive accumulation of negative school experiences in junior high, coupled with an attendence law that prevents dropping out until students are old enough to finish junior high school, means that educational horizons drop year by year for the group as a whole.

The case with the senior high students is different in almost every respect. They are even more likely to have been exposed to negative experiences in the school since they have been there longer. However, if school is too bad and unpromising, they can drop out. If a future family and job are remote to junior high children-turning-adolescent, they are relatively immediate to senior adolescents-turning-adult. Even if school is not stimulating, it is likely to be seen as relevant to the future sex roles of the maturer senior high students. The older students are making, or already have made, vocational decisions that demand commitment to appropriate educational plans. Given their shifts in interests and orientations, they are more likely to give ear to parents' advice for higher education. The track or course of study makes for differential exposure to educational horizons of older peers; those in the college track are likely to be confirmed in that commitment. It seems to be reasonable to assume that the older students have had or are having experiences that leave them less naive and somewhat more realistic and serious about education and life than is the case with junior high youngsters. These factors appear to constitute a plausible interpretation of the fact that students in each succeeding grade of senior high school are more likely to be high on college--desired/expected.

c. Course of Study or Track. Insofar as enrollment in a course of study or track is an expression of students' academic interest, ability, and vocational decision, there should be a substantial, or almost tautological relationship between track and educational horizons. However, enrollment may be a result of parental desires which are at variance with the students' own preferences, or track may be an uncritical reflection of peers' interests and horizons rather than the students' own. Furthermore, placement within any given course of study is significantly influenced by the school's evaluations of students' ability, likely academic performance or promise, and non-scholastic behavior--"their general social conduct." In addition to weighing student preferences and parental desires--and the aggressiveness with which each may be asserted--the school also has to contend with the availability of spaces within each track and academic competition for those spaces. These comments should be sufficient to demonstrate that track and college--desired/expected can be highly related without the relationship being tautological; neither factor is a repetition or necessary outgrowth of the other.

For purposes of the present study, placement within a course of study is important primarily for the reinforcement which may be provided for the students' educational hopes and plans. The reinforcement can be expected to come from teachers and courses that are more closely aligned with students' particular interests and horizons than may have been the case in pre-track junior high school days. Course of study provides an academic context within which differential association and socialization can occur among students. Within each track students are exposed to others who are likely to share similar concerns, abilities, and horizons. For the junior high school students, track or course of study placement is largely a matter of anticipatory socialization, although it is reasonable to expect some voluntary differential association based on mutual interests relevant to educational horizons among younger students. Questions regarding grade/age and track will be dealt with later in this chapter. Now the point is that course of study, actual or anticipated, is of basic significance because it is the basic school context within which educational horizons will be reinforced or will be weakened. The mechanisms operating to produce these outcomes are differential association and socialization processes.

Not unexpectedly, the relationship between course of study or track and college--desired/expected is statistically significant. Inasmuch as there is a problem of order within Table 3.5, the strength of this relationship will not be discussed. By inspection it is evident students in the college preparatory or academic track are much more likely to desire and expect to complete four years of higher education than students in any other course of study (64 to 27% maximum). For students who are unable to enroll in the college preparatory track, the general course offers a second class route to college admission, and some students who are high on educational horizons are found there (27%). Likewise, some students who desire and expect to obtain a college degree are in the business course (22%). The least likely to be high on educational horizons, of course, are those interested in vocational or unclassified courses of study (14 and 15%).

Since the fundamental concern of this study is to explain why lower class Negro students aspire to and anticipate completing college, and given the fact that a majority of those with high educational horizons are in the academic or college course of study, it was decided to limit future comparisons to college versus other tracks. This decision is justified by the school's practice which indicates that the only first class preparation for college is provided in the academic course of study. Pragmatically, combination of three of the four other tracks would have been required to have sufficient subjects for analysis in controlled tables. Table 3.6 presents college track and other tracks, which are collapsed or combined from the four non-academic courses of study found in Table 3.5.

Turning to Table 3.6, it is clear that the relation between track and educational horizons is significant and positive. The two variables are very strongly associated (V=.45). In the non-college tracks, 22 percent desire and expect to finish a college education compared to 64 percent of the students in the college course of study. In view of the preceding discussion, these results need no additional comment or discussion.

### 2. Second-Order Marginal Distributions

It is reasonable to assume that boys in the college track have desires and expectations of college that differ from boys in other tracks--or from girls in the same track. It is reasonable to expect that older or senior high students in the college track are different from their younger track-mates. These and other assumptions are plausible enough, however, it seems important to know how educational horizons are distributed within divisions of the three basic demographic and contextual controls discussed in the foregoing section. Relations between hypothesized independent variables and educational horizons may vary substantially from one population subgrouping to another. This make it advisible to know the marginal distributions for college--desired/expected by combined or "stacked" control factors.

The necessary data is presented in Tables 3.7, 3.8, and 3.9. Which of the demographic or contextual variables is the independent and which is the control factor in these tables is largely academic. Each factor can be treated in either manner with equal facility. Inasmuch as there is no order to these categories, and since the significance tests and correlational measures employed do not require order, there should be no ambiguity in treating first one variable and then the other as the control factor.

a. Sex and Grade. Consult Table 3.7 for the data relating sex and grade/age to college--desired/expected. The correlation is weak (V=.08), and it lacks significance. In other words, controlling the previously non-significant relation of grade and horizons by sex fails to disclose any emergent association. Conversely, the earlier relationship between sex and the horizons typology has been rendered not significant when controlled by the grade/age factor.

Using a t-test to determine if there is any important difference between the percentages of students who are high on educational horizons largely confirms the results of the chi-square test of the whole table. However, the t-tests reveal that among the older or senior high school students, the males are significantly more likely to both desire and expect college than the females (40 to 32%). Apparently, the relative immediacy of adult sex roles and the students' divergent orientations to them explain this difference in educational horizons. The other groups fall between these two in likelihood of being high on the dependent variable.

Such a small difference in distribution on educational horizons (8PD) is not sufficient to justify use of this "stacked" or combined control in any future analysis.

Nonetheless, it could prove to be quite relevant due to a substantial degree of association with one or more of the hypothesized independent variables that will be examined in the following three chapters.

b. Sex and Course of Study or Track. The correlation of sex and track with educational horizons is strong (V=.32), and it is significant. Even a casual examination of Table 3.8 discloses some substantial variations between groups of students desirous of and expecting a higher education. Using the t-test to compare pairs of these groups demonstrates that all differences are significant except between males and females in the college preparatory track.

The fact that students in the college course are much more likely to be high on educational horizons than those in the other tracks is not surprising and has been discussed already. Control by sex does nothing that alters this finding. Clearly track is more closely associated with the dependent variable than sex is.

The discovery that significant sex differences are a non-college track phenomena is new. Here, the males have a greater likelihood of desiring and expecting college than their female track-mates do (25 to 18%). Probably most of these lower class girls expect to marry and do not believe that a college education is necessary--even if possible--for their adult sex role in the home. In contrast to this, the boys must prepare for an adult occupational role which minimally will provide a decent standard of living for them and any future family. Despite their generally inappropriate track enrollment, some of these boys seem to know that a college education would be occupationally useful and that it potentially could serve as the means to social mobility.

To summarize the findings based on Table 3.8, the following ranking resulted on educational horizons: most likely to be high are college track males and females (63 and 65%), males in the other tracks are intermediate (25%), and least likely are non-college track females (18%).

c. Grade and Course of Study or Track. Table 3.9 demonstrates that the relationship of grade/age and track with the educational horizons typology is strong (V=.32) and statistically significant. Furthermore, t-testing the differences between pairs of groups high on college--desired/-expected discloses that all are significant.

The four subdivisions of the population may be ordered on the dependent variable: most apt to be high are college track senior highs (68%), next are college track junior highs (58%), much lower are junior highs in other tracks (26%), and least likely to be high are senior highs in other tracks (17%). Not unexpectedly, track stands out as more relevant to educational horizons than grade/age, but the wide separation of the older or senior high groups is of most interest (51PD). Although widely separated, the two groups of younger students are a little closer together than their older school-mates (32PD).

The pattern of the percentages and the differences between them, combined with the age dimension, serve as the basis for inferring that some independent variable must have a time-cumulative impact on educational horizons. Whether such a factor can be located or not remains to be seen in subsequent chapters of the analysis. Possibly the explanation is that the longer students are differentially exposed to track associated effects, the more likely they are to acquire the educational horizons implied by their track enrollment. Both of these proposed explanations are plausible, and they are not mutually exclusive. The track-based interpretation implicitly includes the notion of time-cumulative effects. A hypothesis of maturation or simple lapse of time as the causal factor, ignores the greater polarization among the older students, and it fails to account for the sources of divergence in the first place.

By way of summation on sex, grade/age, and track, it may be noted: Without exception the track differences on educational horizons are much more marked than those which are ascribable to other demographic and contextual factors. This is true whether the three variables are compared singly or in combination. Variations due to sex are small but are consistent. Grade/age differences are emergent in combination with other factors on college--desired/expected. With grade it is possible to specify that significant sex differences are limited to the older or senior high students, and grade reveals important distinctions in both of the tracks.

The foregoing findings and summation argue for the use--separately and in combination--of the three factors in the remainder of the analysis as control variables.

## C. Personal Evaluations and Educational Horizons

The conceptual model predicted empirical relations would be found between various independent variables and educational horizons. Furthermore, the model asserted that students' personal evaluations or attitudes toward society, their race, school, and self would intervene to modify the effects of each independent factor on student aspirations and expectations for a higher education. Before turning to those problems it is necessary to establish whether or not each set of personal evaluations is significantly related to educational horizons. The conceptual model was operationalized, and specific research hypotheses were derived from it. The hypotheses will be given below at the proper place in the text. The relevant operational definitions are to be found in Appendix B, pages 244-251.

### 1. Effects of Societal Evaluations

The working definition of societal evaluations is called attitudes toward society or simply, societal alienation. It is expected that such feelings or judgments will be germane to students' desires and expectations of college. The hypothesis derived from the model specifies that: The less the students' societal alienation, the higher their educational horizons. The data necessary to test this hypothesis are presented in Table 3.10.

The relationship between attitudes toward society and college--desired/expected is in the predicted direction. Although the correlation is not strong (V=.15), it could occur by chance less often than once in a thousand trials. Among students who are low on societal alienation 44 percent both desire and expect to complete a college education, compared to 30 percent among their more alienated classmates. Inasmuch as the findings manifest the predicted relationship, and there is no negative evidence or reason for serious doubt, it is concluded that the hypothesis obtains.

Apparently, societally alienated students tend to reject major goals of the society, the educational means to them, or the presumed relevance and efficiency of these means within their social situation. For alienated students this implies lowered educational horizons, minimal educational attainments, and then, limited occupational opportunities and a correspondingly low probability for an adequate standard of living. For the society this means a serious waste of talents and skills which could have been utilized if they had been stimulated and articulated by appropriate educational and social experiences. Additionally it implies that alienated students may fail to become economically and socially self-sufficient and thus require various forms of welfare or public assistance.

If the personal and social consequences of societal alienation are depressing, the students with positive attitudes toward society offer some basis for encouragement. Since they are more likely to be high on educational horizons, it is probable they will acquire the skills to lead productive and satisfying lives. For some of the less alienated students with high educational horizons, a higher education may be expected to lead to social mobility into the middle class. For other it implies generational mobility to modestly comfortable but respectable working class (upper lower class) status from the social dependency of their parents--36 percent of the students were from families receiving welfare.

## 2. Effects of Racial Evaluations

The set of indicators or measure of racial evaluations is named racial alienation or racial attitudes. Typically such measures have focused on subject's feelings and judgments concerning racial groups other than his own. The present variable is made up of a set of items dealing with attitudes that subjects hold toward their own racial group. The hypothesis states that: The less the students' racial alienation, the higher their educational horizons.

Inspection of Table 3.11 discloses that the association of racial attitudes and college--desired/expected is weak (V=.09) but in the direction hypothesized. The differences discovered could be due to chance less than twice in one hundred repetitions. Students that are low on racial alienation are more likely to desire and expect college than their more alienated school-mates (46 to 34 and 31%). Since there appears to be neither serious question nor negative evidence, and since the findings support the hypothesized relation between racial evaluations and educational horizons, it is concluded that the hypothesis is demonstrated.

Students' negative feelings about their racial minority group appear to lead to about the same likelihood of being high on educational horizons as distrust or lack of confidence in societal structures, retreat into day-to-day living, and fear of rapid social change--all factors in societal alienation. Although these concepts and their indicators are quite different, the consequences of racial alienation for educational horizons and for life following school have important similarities to the results of societal alienation. Most of the comments previously made regarding attitudes toward society, not surprisingly, are relevant to racial self evaluations.

It may be noteworthy that the probability of being high on educational horizons does not differ substantially between the moderately and highly alienated subgroups seen in Table 3.11 (34 to 31%). Most of the difference is between these two groups and the low alienation subgroup (46%). This suggests that even a moderate amount of racial alienation is likely to have serious effects on educational horizons. Since three-fourths of the student body shows at least some racial alienation and the consequently lowered educational horizons, it seems reasonable to expect the school to become concerned with the problem. Programs to intervene and inhibit the development of alienation or to mitigate the effects of existing alienation would be indicated. This problem will be returned to at various points later on.

3. Effects of School Evaluations

Attitudes toward school is the label designating the operational indicators of students' school evaluations. It seems obvious that such values, feelings, and judgments would have a direct relationship with educational horizons. Students who are favorably inclined toward school by their past experiences, reasonably can be expected to desire to continue these experiences in college. However, it is not so clear that the lower class members of a racial minority can reasonably expect college. The hypothesis asserts that: The more positive the students' attitudes toward school, the higher their educational horizons.

It may be observed in Table 3.12 that the correlation between attitudes toward school and college--desired/expected is positive, as was predicted, and is of moderate strength (V=.20). The level of significance is .001. Among those students with a positive attitude toward school 49 percent both desire and expect to complete a college education, compared to 39 percent of those who are neutral about school, and in sharp contrast to 20 percent of the negative students. The evidence is clear and unambiguous. No difficulties are found. The findings are in accord with the specifications of the hypothesis, therefore, the hypothesis holds.

Comparing the percentages of students who either desire or expect college is of interest. Apparently strong feelings about school lead students to make up their minds about higher education, and as a result, relatively few are in the "either" category on horizons (15 and 18%). However, if the attitudes are neutral, relatively more students either desire or expect college but not "both" (23%). Their school experiences have not been positive enough to move them to high horizons, nor have they been sufficiently negative to push them to neither desire nor expect higher education. In fact, in the latter or low horizons category, the positive and neutral groups are equally likely to be present, but much less likely than the negative group (37 and 38 to 63%).

It is plausible to infer that if school experiences were somewhat more relevant to today's life, some important shifts could occur in the distributions of the present groupings. If the school program were more open and oriented to understanding and dealing rationally with current personal and social issues, not only would students' evaluations of school be likely to change, but some reduction in societal and racial alienation may be anticipated. Additionally the school would be increasing future citizens' abilities to be intelligent, responsible, and productive participants in the life of the larger society. For the school to emphasize this kind of a program would not mean abandonment of its historic role but a vital shift in tactics for educators.

### 4. Effects of Self Evaluations

Self-image is the name applied to the working definition of self evaluations. It seems sensible to assume that variations in estimates of personal ability or worthiness are pertinant to aspirations and expectations of completing college. The research hypothesis to be tested proposes that: The more positive the students' self-image, the higher their educational horizons. See Table 3.13 for the required data.

The relationship of self-image to college--desired/expected is positive, as was hypothesized. The association is weak (V=.10) but could be due to chance alone less than twice in a hundred times. Among students with a positive self-image, 45 percent are high on educational horizons, compared to 35 percent of those who have a neutral attitude, and to 28 percent within the negative self-image category. Neither negative evidence nor serious problems appear. The evidence is positive and clear. Therefore, it is concluded that the hypothesis has been demonstrated.

The most obvious interpretation of the findings is that improvement in self-image would have a direct effect on students' educational horizons. Without attempting to turn the school into an overgrown "poor man's psychiatric clinic," there are appropriate steps which can be taken. Of course, some students with self-image problems need either school psychiatric or psychological assistance. For many students whose problems are less dramatic, negative self-image and racial alienation are associated, and thus, more attention to Negro history and current black contributions to the life of the nation and community should provide students with knowledge and therapy in both areas--and increase both the relevance of the school and the proportion of college-bound graduates. Students' awareness of creative and responsible roles being played by blacks and rewarded by contemporary society also could help in reducing societal alienation by showing that the social order is sufficiently open, reliable, and predictable that sustained, skilled efforts are likely to be appropriately rewarded.

## Summation of Chapter

The measures of educational aspirations and anticipations were examined, found to be highly correlated, and were combined to form the educational horizons typology. The resulting three categories and their frequencies were: College--both desired and expected (36%), College--either desired or expected (18%), and College--neither desired nor expected (46%).

Taking one demographic or contextual characteristic at a time in regard to educational horizons revealed that: (a) Sex: males are a little more likely to be high (39 to 33%). (b) Grade: no difference by grade or age was found (36% each). (c) Course of Study: college track students are much more likely to be high (64 to 22%).

Taking pairs of demographic or contextual factors by educational horizons disclosed the following rankings:

(a) Sex and Grade: among the senior highs, males are more likely to be high (40 to 32%), younger students of both sexes are intermediate. (b) Sex and Course of Study: the college track males and females are most likely to be high (63 and 65%), much less likely are non-college track males (25%), and least likely are non-college females (18%). (c) Grade and Course of Study: college track senior high students are most likely to be high (68%), next are college track juniors (58%), much less likely are non-college track juniors (26%), and least likely are non-college track senior highs (17%).

The predictive utility of the conceptual model and its goodness of fit with the empirical findings were demonstrated when the four hypotheses, separately relating students' personal evaluations of their society, race, school, and self to their educational horizons, were sustained. To summarize by percentages desiring and expecting college: (a) Societal Alienation: low alienation students are most likely to be high (44 to 30%). (b) Racial Alienation: low alienation students are more likely to be high (47 to 34 and 31%). (c) Attitudes toward School: positive students are most likely to be high (49%), neutral students are intermediate (39%), and negative students are least likely to be high (20%). (d) Self-Image: most likely to be high are students who are positive (45%), next are neutral students (35%), and least likely to be high are negative students (28%).

# IV. CULTURAL DEPRIVATION AND EDUCATIONAL HORIZONS

The conceptual model asserted a relationship between cultural deprivation and educational horizons. The major research hypothesis expressing that association specifies: The more the objective cultural advantages of students, the higher the students' educational horizons. The main variables, objective cultural advantages (OCA) and educational horizons typology (college--desired/expected), have been operationalized in Appendix B, pages 240-241 and 252. The empirical relationship will be examined in this chapter to see: (A) If the hypothesized connection holds; (B) If it holds for all demographic and contextual subgroupings of the population; (C) What effects various personal evaluations of the students have upon it.

## A. Independent-Dependent Relationship

The distribution of objective cultural advantages (OCA) and college--desired/expected is presented in Table 4.1. The population was evenly divided on exposure to OCA, with 53 percent high OCA and 47 percent low. The effect of the independent variable shows a difference of 19 percentage points (PD) between high and low OCA students who are high on the educational horizons typology. This association is moderate (V=.21) and statistically significant. The basic relationship of OCA and college--desired/expected is in the direction hypothesized, i.e., it is positive. The evidence in favor of the hypothesis is substantial. No grounds for rejection of the hypothesis appear at this point.

The presence of tangible cultural advantages in the home--or the lack of cultural deprivation--means that conditions are present within which it is reasonable to desire and expect college, but these conditions cannot assure that outcome. By and large, motivation toward college must come from other sources. Being low on OCA imposes serious constraints because there is a relative lack of the conditions important to the development of high educational horizons. Even if culturally deprived students are motivated by their parents' desires or peers' influences, the required cultural tools are apt to be missing and the students culturally handicapped, unless the school compensates for the lack of cultural advantages in their homes. Cultural deprivation at home, coupled with limited financial means, make expectation of four years of college unrealistic and considerably less likely than where there are modest or high OCA in students' home environment. The tie of cultural deprivation to educational horizons seems to be important theoretically and empirically; practical implications will be discussed later.

### B. Relationship within Population Subgroups

Although the major research hypothesis relating OCA and educational horizons received substantial support from the evidence presented in Table 4.1, how extensive is this generalization? What are the limits of its relevance among lower class, Negro high school students? The connection of OCA with college--desired/expected will be examined in subgroupings of the population based on the following factors: (a) sex; (b) grade; and (c) track or course of study.

### 1. First-Order Demographic-Contextual Controls

a. Sex. Table 4.2 demonstrates that the relationship between OCA and educational horizons is positive and significant both for males and females. However, it holds more strongly among the high school boys (V=.26 to .17) since they are more effected by OCA than the girls are (24 to 16PD). Among both OCA groups more boys both desire and expect college than the girls do. It should be noted that these sex differences are statistically significant only among the high OCA students (11PD).

The facts that males are more likely to be high on college--desired/expected and that they are more effected by OCA suggest the crucial importance of the linkage from cultural deprivation to educational horizons to occupation and social mobility. Most of the girls will marry, and their status is fixed by their future husband's status. However, obtaining an adequate education is necessary for vocational competence and upward mobility of lower class, Negro males. For the boys, occupational security and rewards--not to mention mobility--cannot be married or inherited; education is the crucial link between past and future social conditions. If the past is lower class but not culturally deprived, the boys are more likely to develop high educational horizons, to be able to prepare for more rewarding occupations, and to finally escape the lower class status.

Apparently, males low on OCA tend to select occupations which require no more formal education than low OCA females, who are likely either to be housewives or to take menial, domestic tasks. One important implication is that the culturally deprived males rarely have high educational horizons, and thus, probably cannot be upwardly mobile. At least education as a mobility channel is not open to them at the college or university level. In an era which demands formal education or technical competence, cultural deprivation is a serious economic and social handicap. Restricted educational horizons and occupational opportunities will tend to insure continued lower class status for these boys, and their wives and children to come. Personal unhappiness, loss of talent, limited productivity, and dependence on public assistance seem to be probable for many of them.

The consequences of cultural deprivation may not appear to be quite as radical for the females since some of them may marry upwardly mobile male classmates--if they have the opportunity. In spite of those few, it is likely that many will share the personal and social results faced by the culturally deprived males. The girl's deprivation will tend to insure low educational horizons for them, the deprivation will continue, and it will be transmitted to their children, thus maintaining the vicious cycle for yet another generation of boys and girls.

b. Grade. Table 4.3 gives evidence that the connection of OCA and college--desired/expected is positive and significant for both grade or age groupings. However, the basic relationship holds much more strongly among the senior than among the junior high school students (V=.28 to .14). This also may be seen in the older students' greater responsiveness to OCA differences (27 to 12PD). For students who desire and expect college, the grade differences are small and of borderline statistical significance, but they run in opposite directions. The older advantaged students are most likely to be high on horizons (7PD). Conversely, the older low OCA students are least likely to be high (8PD).

Although panel analysis would be desirable confirmation, on the basis of the above findings it is plausible to infer that the consequences of cultural deprivation for educational horizons tend to be cumulative over time. Elimination of cultural deprivation in all students' homes is both obviously desirable and socially unlikely. Short of that, some implications are relevant. Preventive intervention in the school, with programs to compensate for deprivation in the home, should begin early to preclude cumulation of negative effects. This is apparently the aim of "Headstart" and other pre-school programs. Therapeutic intervention in the school may be useful as late as junior high school--at least their horizons still are higher than those of culturally deprived senior high school students. The cultural handicaps and limited educational horizons derived from cultural deprivation in the homes of its students, would suggest that lower class schools should consider aiming some programs at such homes per se. This type of intervention in the deprivation-lowered educational horizons sequence could serve as a basis for enlisting parental support of higher educational aspirations and anticipations.

c. Track or Course of Study. Students in the college preparatory track are much more likely to be high OCA (64 to 48%) and almost three times as likely to be high on educational horizons as students in other tracks (64 to 22%). Given these marginal distributions, the dramatic differences revealed in Table 4.4 should not come as a complete surprise. The relationship between OCA and college--desired/expected is positive and significant for both track groups. It is slightly stronger within the non-college track than in the college track (V=.19 to .17). However, within each track the relationship is slightly weaker than in the basic uncontrolled table (V=.21). This is due to the fact that students who are high on OCA are more likely to be high on the horizons typology and more likely to be college track. Thus variance in each track has been reduced as the between track variance increases on the main variables. OCA differences are smaller when controlled on track (17 and 14PD), than those attributable to track (41 and 38PD) when OCA is controlled.

Part of the importance of the foregoing findings lies in the marked reinforcement that track provides OCA in shaping some students' educational horizons. When high OCA and college track form a positive conjunction, 70 percent of the students involved are desirous of and expect to get a college education in contrast to the 15 percent with similar hopes in the negative conjunction created by low OCA and non-college track. In other words, for some students, track not only reflects OCA differences, but it tends to perpetuate and magnify those differences, very much as the critics of the track system have feared. Their objection to the system is not to reinforcement in the positive conjunction as such, but to the negative reinforcement and the related isolation and segregation of deprived students from the others.

Another important aspect of the findings is complementary to the one just discussed. Track system criticism tends to focus attention on track reinforcement of social class distinctions or differences in OCA, thereby overlooking the conditions under which track and class related variables are in opposition in terms of likely educational horizons. Students in the college track who are low on OCA are more likely to desire and expect a higher education than the high OCA students in the non-college track (53 to 29%). For some students track reduces or off-sets some of OCA's effect on educational horizons.

Differential association and socialization among the students by track, among students and their track teachers, and within divergently oriented courses, constitute the primary mechanisms through which the reinforcement or opposition of track and cultural deprivation take place. Track groups are not passive reflections of students' class or cultural advantage nor do they simply mirror students' pre-existent educational horizons. High school tracks are important as the social contexts within which a potentially dynamic impact is made on youth's educational horizons.

By way of summary, this examination of personal and contextual controls of the connection between cultural deprivation and educational horizons has disclosed: (a) Males are more likely to be high on educational horizons and they are more effected by cultural deprivation, but sex differences are important only when OCA is high. (b) The effects of the independent variable tend to be cumulative, so seniors are much more effected by deprivation, and they tend to be high on horizons more often than juniors when culturally advantaged, while the juniors are more apt to be high than the seniors when culturally deprived. (c) Although OCA effects are somewhat reduced when controlled by track, both importantly influence educational horizons by mutual reinforcement or opposition. Non-college track students may reveal a little more deprivation effects, but college track students are markedly higher on educational horizons. (d) Within each demographic or contextual control utilized, the original relation of OCA and college--desired/expected was found to hold, which suggests rather extensive relevance of cultural deprivation for educational horizons within the lower class black high school population being studied.

Inasmuch as some interesting, and a few dramatic differences were uncovered in the foregoing analysis, what would be the results if each of these variables' subdivision of the population were further controlled by each of the other personal or contextual variables? Some groups should be located in which the original independent-dependent relationship will be strengthened considerably. Given greater OCA effects among males and among senior highs, it seems to be important to determine whether senior high males evidence a substantial tie between OCA and college--desired/expected or not. Conversely, isolation of some groupings where the relation of OCA to educational horizons is particularly weak is probable. For example, both junior highs and college track students show less OCA effects, so it is reasonable to expect that the OCA-educational horizons relationship will be quite small for college track junior high students. Further specification of the relevance or extensiveness of the basic independent-dependent connection can be achieved by means of second-order or "stacked" controls.

### 2. Second-Order Demographic-Contextual Controls

a. Sex and Grade. A combination of grade and sex controls are used to procure the results set forth in Table 4.5. First this table will be employed as a sex control, so differences between grade groups can be studied. Then focus of interest may be shifted to examine sex differences within each grade or age grouping.

(1) As a Sex Control. The junior high boys display almost no effects of OCA (9PD) in sharp contrast to their older school-mates (36PD). Both of the relationships are in the hypothesized direction, and, as suggested earlier, the association is particularly strong for the senior high males (V=.39). However, it is not significant for the younger boys (V=.13). Among males, grade differences are not large (14PD), but, given the substantial interaction of grade and OCA, both are important to the outcome.

The marked cumulative effects of cultural deprivation on boys' college desires and expectations suggest that cultural handicaps are beginning to appear in junior high school, and they are manifest among senior high males. For the vast majority of older students who are lacking tangible cultural advantages at home, it is unrealistic to expect to compete in higher education apart from intervening educational rehabilitation. Even to make such a remark, reflects the feeling that the present school program is not adequate for the needs of the culturally disadvantaged students.

Perhaps some of the differences noted above, may be ascribed to social psychological maturation and the relative immediacy of future occupational concerns of the older students. Being more mature, and the nearness of adult roles, may lead the senior high boys to be more realistic and self critical in appraising their educational futures. The culturally deprived seniors must choose jobs or further education which are appropriate to their cultural debilities.

Even if the younger deprived students have not experienced their deprivation as acutely, the remoteness of future occupational concerns permits less realistic self appraisal and a naive mirroring of the high social evaluation of college.

A parallel description of grade differences among females can be abstracted from Table 4.5. The basic relation between OCA and college--desired/expected is positive, rather weak, but clearly holds within each group (V=.18 and .17). No significant differences appear, although the senior high girls may be a little more effected by OCA than the younger students are (17 and 15PD). This virtual lack of differences between the two groups of girls is striking.

Apparently, the similarity of girls regardless of age or grade is a function of like sex role expectations. Most of the girls anticipate being housewives, whether they are culturally deprived or not. The immediacy or remoteness of this role makes little difference in their educational horizons because not many of them are likely to see college as necessary to being a housewife or mother. Such a viewpoint is understandable particularly in face of their lower class status and limited financial means. The culturally disadvantaged girls may desire college, but they are hardly free to expect such an expensive adjunct to their likely sex role. Culturally advantaged girls are relatively freer both to desire and expect college, and they are more likely to be aware of and anticipate female roles outside of the home--roles as teachers, technicians, and so forth which require a higher education as a prerequisite.

(2) As a Grade Control. A re-examination of Table 4.5 enables us to hold grade or age constant and make comparisons of OCA-educational horizons relations between males and females. Contrasting senior high school boys and girls confirms each of the points previously established in the analysis of Table 4.2, the original sex control table. In the earlier table, males were about 50 percent more effected by OCA than females (24 to 16PD), but within senior high, the boys are more than twice as effected as the girls (36 to 17PD). As a consequence, college--desired/expected and OCA are much more strongly related among the older boys (V=.39) than among their female age-mates (V=.18).

Continuing the examination of Table 4.5 discloses that junior high students depart from the general pattern as much as the older students but in a different direction. Only one note-worthy distinction appears between the two junior high sex groupings. Due to the greater effects of OCA among the females (15 to 9PD), the basic connection of OCA and college--desired/expected holds for them (V=.17), but it is not significant for the boys (V=.13). The relation is positive in both, and all percentages are in the expected direction. The small sex differences within the junior highs are not statistically significant.

(3) Final Sex and Grade Comparisons. Because of the similarities of junior high males and females and of both female groups, it is appropriate to wonder if there is

any germane dissimilarity between the three groupings. Contrast of junior boys and senior girls produces only a single difference for those who are high on educational horizons. Due to the greater effect of OCA on the older girls (17 to 9 PD), the basic relationship of OCA and college--desired/expected holds among them but not for the younger boys (V=.18 to .13). The sex differences lack statistical significance. Junior high males are not only unlike the older males, they are quite similar to all females on the subject at hand.

One of the implications of the foregoing is that, as far as cultural deprivation and educational horizons are concerned, at most the following groupings are relevant for consideration: senior high males; all females; and junior high males. The relationship is strongest within the first group (V=.39), weak in the second (V=.18 and .17), and both weak and non-significant in the third group (V=.13). Due to the great difference in the strength of the relation between the first and the other two groups, and the similarities of the latter two, it seems fair to conclude that only two sex and grade/age groupings are pertinent: senior high school males and all other high school students.

Such a conclusion would be in harmony with the major interpretive themes being utilized. For the older, senior high school boys, the occupational aspect of future sex role behavior is dominant. They are most vulnerable to cultural deprivation's handicapping impact on educational horizons, and they are most ready to exploit cultural advantages. For the girls in general, the family side of anticipated sex role performance is more likely to be of concern, hence, cultural advantage or deprivation has less to do with their educational futures. The same basic outcomes tend to occur among the younger students--especially among the junior high boys--because of immaturity, preoccupation with the problems of early adolescense, and the remoteness of adult sex roles. So also, the younger students are less experienced with the effects of cultural handicaps or advantages, and they may not be as pressed for realistic self-appraisal nor feel the need for appropriate planning for their educational futures. As they mature, the younger males are expected to undergo a marked change vis-a-vis OCA and educational horizons. Even though the younger girls may experience a similar sex role reorientation as they mature, no significant difference is expected in the relationship between the main variables.

b. Sex and Track or Course of Study. Table 4.6 is the source of the empirical information needed for analysis of OCA and college desires and expectations within sex and track subdivisions of the population. First the table will be used as a sex control so differences between tracks can be examined more closely than was possible earlier. Then the focus of interest can be shifted so that sex differences may be studied within each track or course of study.

(1) As a Sex Control. In discussing Table 4.4 it was noted that the relation of OCA to track is important as a lower class analogue to differential enrollment in track

by social class in a mixed class high school. In both cases the principle is the same: the more advantaged have skills and expectations that are more likely to lead to college; the less advantaged may have the native ability and desires necessary for higher education, but they are likely to lack the required cultural skills and expectations. These differences are reflected in track enrollment. For both males and females, while high OCA students are about evenly divided on track, only about one-third of the low OCA students are in the college track. This suggests that enrollment in college track by low OCA students may represent determination to be upwardly mobile despite cultural disadvantages in the home. It also implies that the school or other factors may have intervened to lessen the depressing effects of low OCA on their hopes for higher education--whether or not college is seen as a means to participation in a better life.

The empirical evidence from Table 4.6 for the males can be summarized: College track boys display a negligible amount of OCA effects (11PD) in contrast to the moderate effects of OCA among their male colleagues in other tracks (22PD). As a result, the association of OCA and college--desired/expected is much less substantial within the college track than in the non-college tracks (V=.17 to .27). For both groups of boys, the relationship is in the hypothesized direction, however, it is so weak among college track males that it lacks statistical significance. Differences of that size could occur by chance 10 percent of the time.

The discussion of Table 4.4 pointed out the reduced association between OCA and the horizons typology when controlled by track; Table 4.6 indicates that one source of the tendency is college track males. Apparently, even the low OCA boys in the college track are oriented toward mobility by way of occupations which require higher education. Other factors such as parents' desires and personal evaluations by students will be analysed later, but to what extent are OCA differences among boys reinforced or decreased by differential association and socialization within tracks? Reinforcement of OCA differences occurs in the conjunctions of track and OCA. Where OCA is high and the boys are in the college track, 68 percent both desire and expect college in contrast to only 16 percent in the negative conjunction of low OCA and non-college track. Both variables contribute substantially to the results, and there is some interaction between them, but track accounts for much more of the final outcome. The dramatic role of track in decreasing OCA differences can be seen when OCA and track are in opposition. Boys who are high on OCA but in a non-college track are much less likely to desire and expect to obtain a college education than the boys that are low OCA but in the college track (38 to 56%).

Unlike their male counterparts, for females in both tracks, the relationship between OCA and college--desired/expected is significant. In each case the association is in the direction anticipated; both are positive. Girls in the non-college tracks are minimally effected by variations in

OCA (9PD), while those in the college preparatory course of study show a dramatically larger effect (24PD). Therefore, the relationship is stronger for college track girls (V=.30) than for girls in other tracks (V=.15).

As in the case of the males, track may reinforce or off-set OCA effects on educational horizons. In the positive conjunction of high OCA and college track, 74 percent of the girls are desirous of and expect college, compared to a mere 13 percent in the negative conjunction. Although both track and OCA are important to the outcome, there is interaction between them, and track accounts for more than twice as much of the results as OCA. The greater contribution of track is revealed in the opposition of the two. Girls who are high on OCA but in the non-college track are less than half as likely to desire and expect college as those who are low on OCA but in the college track (22 to 50%).

Perhaps the weak relation of OCA and the educational horizons typology within the girl's non-college track is due to their anticipated sex role function of housewife. As was indicated previously, in the lower class a college education is likely to be viewed as unnecessary, or even as an undesirable luxury, for girls who are to marry and raise a family. In such an event, variations in cultural advantage or deprivation would make little difference in educational horizons, and would be more likely to lead to enrollemnt in a non-college track or course of study.

The stronger connection between OCA and educational horizons among girls in the college track may be accounted for in part by differences in future sex roles. It is not unreasonable to assume that high OCA girls are more likely to be aware of and interested in occupational opportunities other than that of housewife and mother. Many of these opportunities are professional or semi-professional occupations which require higher education. Even if they expect to take the traditional female role, it appears probable that the culturally advantaged girls are finding education to be of value, and they plan on college to prepare them for an occupation until they marry. Later it can supplement the family income to provide a higher standard of living, and it may even facilitate mobility into the middle class.

Although some of these factors undoubtedly operate among college track girls who are low on OCA, it seems much more probable that they will be dominated by the traditional female role and only secondarily will be interested in a job as a means of self-expression and support. Furthermore, the occupational orientation may be primarily stop-gap, that is, assumed until they get married, but continued after marriage only if an economic necessity. It is also plausible to suspect that low OCA girls in the college track will not be as likely to select occupations which require four years of higher education. They should be more likely to choose a junior college education than high OCA girls. Despite being in the college course, cultural deprivation may have created handicaps that preclude college for many low OCA females.

(2) As a Track or Course of Study Control. Holding track constant enables us to re-examine Table 4.6 and make comparisons of male-female responses to OCA. Among college track students, sex differences are not statistically significant if college is both desired and expected. Males show less OCA effects than females (11 to 24PD), and, of course, the relationship of OCA and college--desired/expected is a lot stronger among the girls than among the boys (V=.30 to .17). This weak and non-significant relationship among the boys was discussed above. Apparently college track boys are more likely to feel occupational pressures or the necessity for success in their future sex role, which minimize the OCA effects on their horizons. Conversely, the females are not so pressured and are, therefore, more likely to be responsive to differences in OCA.

In the non-college tracks the males show more marked OCA effects (22 to 9PD), and the OCA-college--desired/expected relationship is much stronger among the males than among the females (V=.27 to .15). It should be noted that the sex difference is statistically significant only among high OCA students. Dissimilar anticipated sex roles appear to be a sufficient explanation of the differences between males and females in the non-college courses of study.

(3) Final Sex and Track Comparisons. Analysis of Table 4.4 already has established that differences in track are significant and, not surprisingly, that college track students are markedly higher on educational horizons. These

findings are confirmed and elaborated in Table 4.6 by controlling on sex. All track or course of study differences among males are significant; the same is true among females.

However, Table 4.2 demonstrated that significant sex differences occur among high OCA students, that males are more apt to be high on educational horizons, and that they are more effected by OCA than females. Further specification in Table 4.6 by controlling on track reveals that males are significantly higher on college--desired/expected when OCA is high, and they are more effected by OCA, however, these findings are limited to the non-college track. Within the college track no significant sex difference on the probability of being pro-college appears, but the males are so much less effected by OCA that the main relation lacks significance.

To summarize: The relationship between OCA and the horizons typology is stronger among the college track females (V=.30) and non-college track males (V=.27) but much weaker among the college track males (V=.17) and non-college track females (V=.15).

c. Grade and Track or Course of Study. Table 4.7 contains the data for grade and track control of the relation between OCA and college--desired/expected.

(1) As a Grade Control. The independent-dependent variable relationship is positive and significant for both track groupings of senior high school students. Differences between tracks are also statistically significant. In the senior high school, college track students are more effected

by OCA than students in other tracks (29 to 16PD), and, as a result, the basic relationship holds more strongly among the college track students than among those in other tracks (V=.31 to .26). In the positive conjunction of high OCA and college track, 78 percent of the seniors desire and expect to attend college, compared to only 10 percent in the negative conjunction. The effects of track are greater than the effects of OCA, as can be seen in the opposition of the two variables: students high on OCA but in the non-college track are almost half as likely to be high on educational horizons as those who are low OCA but in the college track (26 to 49%).

When Table 4.7 is examined for information on junior high school students, a dramatically dissimilar picture is seen. The basic OCA-college--desired/expected relationship is positive, but lacks statistical significance within both groups of younger students. However, it should be pointed out that OCA effects are significant for non-college track juniors who are high on educational horizons (12PD). In the college track OCA effects are virtually non-existent (1PD), and they will be discussed below. It is hardly necessary to say that the association of the main variables is very weak in both junior high school tracks. It is slightly stronger in the non-college than in the college track (V=.13 to .09). Per usual, track differences remain statistically significant although they are not as great as among senior highs.

Apparently, the fact that track enrollemnt is merely anticipated by the junior high students accounts in part for less reinforcement of OCA by track. In the positive conjunction of OCA and track, 59 percent both desire and expect to get a college education, compared to 21 percent in the negative conjunction. The opposition of track and OCA shows the larger role of track. Non-college track juniors who are high on OCA are only about one-half as likely to desire and expect a higher education as those who are low OCA but in the college track (32 to 58%).

(2) As a Track or Course of Study Control. Table 4.7 contains the information necessary for an assessment of the role of grade within the two main courses of study. As just discussed, within the college track the basic relation of OCA and college--desired/expected is significant for the older but not the younger students. The senior highs are very highly influenced by OCA (29PD), but the junior highs' response is nil (1PD). The cumulative effects of OCA could not be more clearly illustrated. Of course, the independent-dependent variable association is much stronger among senior than among junior high students (V=.31 to .09). Within the college track, grade differences are significant only among the high OCA students.

Given the remoteness of future sex roles, preoccupation with the struggles of early adolescence, limited social and academic experience, and the fact that track enrollment is merely anticipated by the junior high students, it is not surprising they show no OCA effects in educational horizons in contrast to the older students. The effects are latent, they are only beginning to cumulate. Within a generally deprived environment, the full impact of their deprivation has not become plain to the low OCA juniors, and the other juniors are not yet impressed with their advantages as far as college and their future roles are concerned. It would require panel analysis to confirm, but it is reasonable to assume that as they grow older, those that are low on OCA will be more apt to have school experiences that will lead them to drop their expectations of college, and some will shift to a non-college track. Juniors who are high on OCA should be more likely to have school experiences which will reinforce their college desires and expectations. And, as the importance of future sex roles increases for them, at least the junior boys are likely to move from less favorable to more favorable attitudes regarding college.

Turning in Table 4.7 to consider the role of grade or age within the non-college track reveals findings which parallel those in the college track. The relationship of OCA and college--desired/expected is significant for older but not for younger students. The senior highs are somewhat more effected by OCA than the juniors (16 to 12PD), and the association of OCA with horizons is much stronger among the older students (V=.26 to .13). However, grade differences within the non-college track are significant only for students who are low on OCA. The explanatory comments offered in the preceding paragraph for college track juniors' dissimilarity vis-a-vis their older track-mates, apply equally well to these non-college track students.

(3) Final Grade and Track Comparisons. From Table 4.7, it may be concluded that the original relation of OCA and the educational horizons typology holds within senior high school regardless of track, but it does not hold for either junior high school track. These effects of cultural deprivation and advantage are intimatelt tied to age; they tend to cumulate over time in shaping students' educational horizons. OCA impact on college--desired/expected leads to the following order by grade and track: Senior high school students in the college track (V=.31), and non-college track seniors (V=.26), then junior high school students from the non-college track (V=.13), and college track juniors (V=.09). It is evident that the educational outlook of the older students is markedly influenced by variations in tangible cultural advanatges in their homes. Probably increasing maturation and related shifts in sex role orientation will occur before the younger students consistently manifest significant effects of cultural advantage or deprivation in their educational aspirations and anticipations.

### 3. Summation of Demographic-Contextual Control Findings

a. Sex. (1) Although males are slightly more apt to be high on educational horizons (39 to 33%), they show a greater impact by OCA (V=.26 to .17), but the sex differences are significant only when OCA is high (11PD). (2) When controlled by grade, among the older or senior high students the boys' horizons are far more effected by OCA (V=.39 to .18), but sex differences are significant only if OCA is high (17 PD). In junior high the sexes do not differ from each other nor from the females in senior high (V=.17 and .13). (3) If the main relation is controlled by track, in the college track it is much weaker and non-significant among males and other sex differences are inconsequential (V=.17 to .30). In the non-college tracks the relation is much stronger among males (V=.27 to .15), but the males are more likely to be high on horizons only when OCA is high (16PD). (4) The variations attributable to sex increase when the basic relation is controlled by grade/age and track. Nonetheless, important sex differences are limited to students who are high OCA, older boys versus all others, and non-college track students.

b. Grade. (1) Both grade/age groupings are equally likely to desire and expect college, but the older or senior high students are more effected by OCA (V=.28 to .14). Since the older students tend to be high on horizons when OCA is high (7PD) and the junior highs are more apt to be high when OCA is low (8PD), it appears that OCA effects are cumulative over time. (2) When the main relation is controlled by sex it is clear that senior high boys are dramatically more influenced by OCA than any other sex and grade/age grouping where the differences are not important (V=.39 to .18, .17, .13). (3) When the OCA-horizons relation is controlled by track, it is evident that the older students have accumulated more OCA effects. This is true in the college track (V=.31 to .09), but horizons differences are important only if OCA is high (18PD). It also is true in the non-college track (V=.26 to .13), but horizons differences are marked only if OCA is low (11PD). (4) Grade/age variations increase substantially when the OCA-horizons relation also is controlled by sex and track. Grade differences show that males and older students are most effected by OCA. The most significant contribution of grade/age is that it reveals the time cumulative nature of cultural deprivation's influence on educational horizons.

c. Course of Study or Track. (1) Students in the college track are more likely to be high on the educational horizons typology (64 to 22%), and all differences between tracks are significant, but students in both tracks are about equally influenced by OCA (V=.19 to .17). (2) If additional control is made by sex, then among the males those in the college track are less effected by OCA (V=.17 to .27), whereas among the girls those in the college track are more influenced in their horizons by OCA (V=.30 to .15). (3) When controls are added for grade/age among the older or senior highs the college track students are slightly more influenced by OCA (V=.31 to .26); but among the younger students those in the college track are slightly less effected in their horizons (V=.09 to .13)--OCA-horizons relations lack significance in both groups of younger students. (4) Differences which can be ascribed to track are consistently significant, and they are greater than those separately attributable to sex, grade or age, and OCA. Because of differential association and socialization which occur within tracks, the course of study is important as a context in which reinforcement or opposition of OCA effects on horizons takes place. Deprivation in the home may be counterbalanced, or it may be entrenched by by track enrollment and experiences.

d. Final Evaluation of Demographic-Contextual Controls. The fact that used separately each of the basic controls for sex, grade/age, and track reveals a significant relationship between OCA and college--desired/expected may be taken to suggest rather extensive relevance of cultural deprivation for educational horizons within the lower class Negro high school being studied. By combining these basic controls two at a time, some population subgroupings were located within which the main relationship did not hold.

The association of OCA and college--desired/expected was not significant for junior high boys, college track boys, junior high college track students, or junior highs in the other tracks. Not only are these four groupings a minority of the twelve studied, but junior high school males are common to each of them. Except for males in the college track, each grouping is entirely constituted by younger students. These findings add weight to the argument that OCA effects are cumulative and that the younger, less mature, students are still relatively undifferentiated in their educational horizons by cultural handicap or advantage. One important implication of this is that the more advantaged junior highs can be encouraged to exploit their advantage. A complementary implication is that the more deprived students who are high on horizons may be encouraged to develop the necessary skills so their educational futures are realistic. Some of the other deprived students are young enough that their low horizons may be raised and requisite skills attained without formal educational rehabilitation.

What accounts for the non-significant relationship of OCA and college--desired/expected among the college track males? It is partially a function of the group's including junior high students. In part it is also due to the fact that there are relatively few low OCA males in that track, and college track has a tendency to off-set low OCA effects on educational horizons. Another factor is the size of the grouping. Among these college track boys V is .17, but .15 among the non-college track females is significant; the last group is twice as large. Despite the validity of each of these comments, the relationship still is weak. It also may be a function of sex role pressures and mobility desires of the college track males. No matter what their cultural background at home, other experiences may have intervened, leading to a determination to use education as a means to a good job and to a better life economically and socially.

What do the preceding non-significant relationships between OCA and college--desired/expected imply for the main research hypothesis? Quite properly, though somewhat superficially, it could be concluded that the relevance of this hypothesis is primarily limited to senior high school. However, given what seems to be the cumulative character of the effects of OCA on students' educational horizons, and given a completely consistent, though a weak relation, within the junior high school, it appears preferable to conclude there are no serious limitations to the relevance of the hypothesis within the lower class black high school population. Since all OCA effects on the educational horizons typology are in the predicted direction, there appears to be no empirical grounds at this juncture in the analysis for questioning the usefulness or validity of the research hypothesis. However, prior to drawing any final conclusions, it will be necessary to further test the main OCA-college--desired/expected relation to see if it can be explained as spurious or interpreted as due to a third factor such as student evaluations.

## C. Effects of Personal Evaluations on the Relationship

The conceptual model predicted a connection between cultural deprivation and educational horizons which would be modified by students' personal evaluations of their society, race, school, and self. That model was operationalized, and specific research hypotheses derived from it will be given below at the appropriate places in the text. Appendix B contains the relevant operational definitions.

### 1. Effects of Societal Evaluations

The working definition or operational measure of societal evaluations is called societal alienation or attitudes toward society. In the third chapter it was shown:

The less the students' societal alienation, the higher their educational horizons. In the present chapter evidence has been accumulated for the hypothesis: The more the objective cultural advantages of students, the higher their educational horizons. The present problem is to ascertain whether or not societal evaluations explain away or otherwise condition or modify the latter relationship. The hypothesis now to be tested is: The more the objective cultural advantages and the less the societal alienation, the higher the students' educational horizons. The distribution of OCA and college--desired/expected, controlled by students' societal alienation, is presented in Table 4.8.

In both of the control subtables the relationship of OCA and the horizons typology is significant and in the hypothesized direction. The association between the basic variables is stronger in the low alienation subtable (V=.23 to .18). The effects of OCA and attitudes toward society are both important for educational horizons, and all differences between them are statistically significant. There is some interaction between them, but OCA clearly accounts for more variation in educational horizons. Lack of tangible cultural advantages in the home may be one source of negative feelings toward society. Another source may be experiences leading to negative racial evaluations which will be examined later.

In any event, student attitudes toward society may reinforce OCA under certain circumstances. When students are low on alienation and high on OCA, a positive conjunction is formed. In that conjunction, 54 percent both desire and expect to obtain a college education, in contrast to 23 percent in the negative conjunction. OCA's predominant role is seen in its opposition with societal alienation. When both variables are low, 31 percent are desirous of and expect to go through college, compared to 38 percent when students are high on both. The effects of both variables on educational horizons are cumulative and largely independent.

In conclusion, it may be stated that the evidence in Table 4.8 is consistently favorable to the hypothesis suggested as the relationship between societal alienation and OCA and the educational horizons typology. Neither negative evidence nor serious reason for doubt appears. Inasmuch as the main relation of OCA and horizons holds when controlled by students' attitudes toward society, it also may be concluded that an additional argument has been added in behalf of the basic hypothesis which asserted that interrelationship.

Students' distrust or lack of confidence, fear of rapid changes that are taking place, or retreat from concern with future social participation into day-to-day withdrawal, connotes more than an alienated or anomique response to the conditions of society. It implies serious consequences for these students and possibly for the society too. For these students, it is likely to mean lowered educational horizons and then, lowered occupational opportunities and diminished probability of social mobility and a better living standard. Lower class status and cultural deprivation are more apt to continue for students with negative attitudes toward society. These consequences may occur because the students reject the goals of the society, the educational means to them, or the alleged efficacy of these means in the present situation as they see it. For the society it is probable that this means serious loss of talents or skills which otherwise would have been available. It also suggests that many of these students and their families-to-come will constitute a drain on public welfare funds just as some of their parents have.

If the negative results of alienation are to be prevented, it may be wise for the school to re-orient some of its activities to develop positive attitudes toward society. At least the school should make attempts to reduce students' alienation by encouraging realistic planning for the future and by rewarding responsible social participation among its students. A more positive and reasoned appraisal of current changes in the social order should enhance the school's own credibility as a relevant and effective means to attaining the students' personal goals within the society.

## 2. Effects of Racial Evaluations

The operational definition or measure of racial evaluations is named racial alienation or racial attitudes. Unlike most measures which are concerned with exploration of the subjects' feelings about others, this set of items focuses on attitudes subjects hold toward their own racial group. In the preceding chapter it was seen that: The less the students' racial alienation, the higher their educational horizons. Thus far in the present chapter, the data have supported the assertion: The more the objective cultural advantages of students, the higher their educational horizons. Although it is possible for racial alienation, as the test variable, to explain away this relation, it is believed that both alienation and OCA contribute to the outcomes in the dependent variable. The hypothesis specifies: The more the objective cultural advantages and the less the racial alienation, the higher the students' educational horizons. The relationship of OCA and college--desired/expected, controlled by racial attitudes, is to be found in Table 4.9.

In each of the three subtables, the relationship of OCA and educational horizons is positive, as was predicted. While the relationships within the low and medium subtables are significant and relatively strong (V=.22 each), the high alienation subtable reveals a weak and non-significant linkage (V=.07). A closer inspection of Table 4.9 discloses that no difference between the medium and high racial alienation groupings is significant statistically; chance may account for the dissimilarities. The two subtables are virtually the same statistically, except for one notable fact. The OCA-college--desired/expected relation is significant in the first and non-significant in the second, thus the two groups cannot be equated empirically. However, not only are the low and high alienation subtables dissimilar, but between the low and the medium groupings, the differences are significant for students who desire and expect college.

The cumulative effects or mutual reinforcement of OCA and racial attitudes are clearer in the conjunctions of these two variables. When students are high on OCA and low on alienation, 56 percent desire and expect to complete a college education, compared to 28 percent in the negative conjunction. The similarity of OCA and racial alienation effects on college--desired/expected is demonstrated when they are in opposition. Students low on alienation and low on OCA are no more likely to be high on horizons than those who are high on OCA but highly alienated (35% for each group).

Both OCA and racial attitudes are important to the students' educational futures, but how are their influences linked or mediated? Apparently if students are very highly alienated because of race, differences in OCA are of little consequence, i.e., negative racial attitudes become the primary determinant leading to educational horizons. In other words, by elaboration it is specified that the main relation of OCA and educational horizons is contingent upon the lack of high racial alienation. This clearly implies that both cultural deprivation and racial alienation must be eliminated if students are to be optimally free in selecting their own educational horizons. Cultural advantages mean little when experiences have led to a markedly negative evaluation of one's minority racial status.

Although much more influenced by OCA, even moderate racial alienation is sufficient to depress educational horizons until the medium group as a whole is only slightly more apt to desire and expect college than the high alienation group as a whole (34 to 31%). Of course, among the moderate alienation group, this is due to the low OCA students who are vulnerable to depressing effects of both variables on their educational futures. High OCA largely off-sets the negative effect of some racial alienation. The moderately alienated subgrouping in Table 4.9 is strikingly similar to Table 4.1 which presented the uncontrolled relationship of OCA and educational horizons.

Among those students who have positive attitudes of their own race, the differences attributable to OCA are more substantial than in the other subtables (23 to 19 and 7PD), and, as a whole, they are more likely to be high on educational horizons (47 to 34 and 31%). These findings further lend weight to the interpretation that OCA and racial attitudes are cumulative in their effects and that OCA is conditioned by racial attitudes.

Before turning to the conclusion of the discussion, it is necessary to make one more set of comparisons. When contrasting the three groups of low OCA students again, it is evident that these differences are small (11PD maximum), and possibly non-significant fluctuations. In any event, it appears that high OCA is a condition of substantial effects of racial alienation on educational horizons.

By way of final summation, it may be stated that OCA and racial attitudes have important influence on educational horizons. The effects of both variables do tend to cumulate in the manner hypothesized, although the evidence is not as unambiguous or unanimous as desired. The relationships are complicated due to the facts that OCA effects are contingent on the absence of high racial alienation, and the effects of racial attitudes seem to be minimized among those who are low on OCA. It is concluded that: The more the objective cultural advantages and the less the racial alienation, the higher the students' educational horizons. It further is concluded that the present evidence does two things for the research hypothesis relating OCA and educational horizons. First, it strengthens the credibility of that hypothesis because the test by racial alienation did not explain away the relation. Second, it adds the qualification or specification that the relationship between OCA and college--desired/expected is contingent upon the absence of high racial alienation, i.e., on the students' lack of markedly negative attitudes toward their own racial grouping.

Some of the implications of the foregoing have been commented on briefly in this section and in the preceding chapter. Remarks made in regard to societal alienation are partially relevant here. Also, at the end of this chapter, some of the discussion of self evaluations should have implications for the present topic of racial attitudes.

### 3. Effects of School Evaluations

The working definition of school evaluations has the label, attitudes toward school. Earlier it was established: The more positive the students' attitudes toward school, the higher their educational horizons. Now the task is to see if the connection between OCA and educational horizons can be explained away or interpreted as a non-causal correlation due to mutual linkage via school attitudes. Despite such a potential result, it is hypothesized: The more the objective cultural advantages and the more positive the attitudes toward school, the higher the students' educational horizons. Table 4.10 contains the data necessary to test the relation of OCA and college--desired/expected, when controlled by the students' attitudes toward school.

In each of the three subtables, the relationship of OCA to the educational horizons typology is statistically significant and positive. The correlations within each of the subtables are moderately strong and do not differ from each other. However, negative school attitudes minimize OCA differences among those high on horizons (from poistive to negative, OCA effects decline from 22 and 20 to 13PD).

Positive school attitudes and high OCA form a positive conjunction where 58 percent of the students desire and expect to finish hour or more years of college, in sharp contrast to a scant 14 percent in the negative conjunction. The cumulative character of OCA and school attitudes is clear. Opposition between them demonstrates that attitudes toward school may counterbalance or off-set OCA effects and that it may be somewhat more influential than OCA in determining high educational horizons. When school attitudes are positive but OCA is low, 36 percent desire and expect higher education in comparison with the 27 percent who do so when high on OCA but negative toward school. Nonetheless, both OCA and school attitudes are important to horizons.

The most obvious, and possibly the most important, implication of the foregoing discussion is that the pleasant, rewarding, stimulating, and useful experiences which go into building positive student evaluations, may be enhanced and expanded by the school so that the advantaged students are encouraged to exploit their advantages to a higher degree in the future than they have thus far. Part and parcel of this suggestion is that the same effort could enable more of the culturally disadvantaged to develop school evaluations which would off-set or counteract some of the effects of cultural deprivation in the home. Surely a much larger proportion of the disadvantaged were born with the ability to complete a college education than are presently planning on it. Early development of positive school evaluations should intervene so that cultural deprivation will be less apt to lead to low educational horizons and related social handicaps.

Since the effects of OCA and school attitudes are both positive, cumulative, and significant, it is concluded: The more the objective cultural advantages and the more positive the attitudes toward school, the higher the students' educational horizons. Inasmuch as testing by school evaluations did not diminish the relation between OCA and college--desired/expected, the present analysis is an argument that adds confidence to the hypothesis expressing that relation.

## 4. Effects of Self Evaluations

The measure or operational definition of self evaluations is self-image. Previously it was seen that: The more positive the students' self-image, the higher their educational horizons. The problem at hand is to determine whether or not self evaluations explain away or otherwise condition or modify the connection between OCA and college--desired/expected. The hypothesized relationship is: The more the objective cultural advantages and the more positive the self-image, the higher the students' educational horizons. The distribution of the main variables, controlled by self-image, is to be found in Table 4.11.

In each of the self-image subtables, the association of OCA and the educational horizons typology is positive, as was hypothesized. However, the relationship is not significant among students with a positive self-image; better than five, but less than ten times per hundred trials, results of this magnitude could occur by chance. The influence of OCA is most marked within the negative self-image subgrouping, next in the neutral or medium group, and least in the positive or high self-image group (V=.29, .22, and .13).

The cumulative effects of OCA and self-image are clear in their conjunctions on educations horizons. When the conjunction is positive, 50 percent are both desirous of and expect a college education, compared to only 17 percent of those who are low on OCA and negative in self-image. An examination of students who are high on OCA reveals that the differences in self-image are not significant (7PD). Most of the cumulative effects take place among students who are low on OCA (20PD).

The preceding paragraphs support the contention that a strong, positive attitude toward the self tends to counteract much of the influence or effect of cultural deprivation on educational horizons. The data show that the relation of OCA and college--desired/expected is contingent upon lack of a positive self-image. It also is apparent that low OCA is a condition for significant variations in horizons by self-image. These findings not only confirm that both variables are important to the dependent outcomes, but they imply that rehabilitation of deprived students should include therapy directed toward improving their self-image.

Less stress on failures in school and more frequent rewards for learning may be indicated. Since racial alienation and negative self-image are related among these Negro students, more attention to black history and contributions to local and national life made by black citizens should be productive innovations that the school could make with minimal difficulty. Such changes also could aid in reduction of societal alienation, when students come to see some of the responsible and creative roles played today by Negroes and rewarded by contemporary society.

Serious attempts to raise the educational horizons of these students must not end with concern for their self-image. Analysis of Table 4.11 discloses that the influence of OCA on college--desired/expected is larger. An example may be seen in the opposition of OCA and self-image. When self-image is positive and OCA is low, 38 percent are high on educational horizons, but when self-image is negative and OCA is high, 43 percent desire and expect college.

The findings may be summarized: Although OCA effects are greater, both OCA and self-image are important to educational horizons. The effects of both variables tend to cumulate in the manner hypothesized, but relevant specifications must be made. The relationship of OCA and college desires and expectations is supported, but it is contingent upon the lack of positive or high self-image. Further, it should be specified that low OCA may be a contingent condition for the relation of self-image and college--desired/expected. It is concluded that: The more the objective cultural advantages and the more positive the self-image, the higher the students' educational horizons.

### 5. Summation of Effects of Personal Evaluations

Each of the four types of personal evaluations was utilized to test the relationship between OCA and students' desires and expectations for college. In no case was this basic relationship explained away or interpreted as being a non-causal association produced by mutual linkage through a third variable. However, it must be noted that the OCA and college--desired/expected relation is contingent upon lack of high racial alienation and upon lack of a positive self-image. In every other instance, the basic correlation has statistical significance and cannot reasonably be attributed to chance. Without exception, the direction of the association between OCA and educational horizons is positive, as was hypothesized. The evidence in favor of the hypothesis is impressive. Specification of two contingent conditions does not constitute negative evidence, and no serious doubt, or reasons for doubt remain. Therefore, it is concluded: The more the objective cultural advantages of students, the higher their educational horizons.

Each of the hypotheses, separately relating attitudes toward society, race, school, and self to objective cultural advantages and their effects on educational horizons, were supported since these effects cumulated in the manner and direction hypothesized. The predetermined level of statistical significance was satisfied in all but two instances. In these two exceptions it was specified that: High OCA is a contingent condition for substantial effects of racial alienation on college--desired/expected. Similarly low OCA is a contingent condition for substantial effects of self-image on the dependent variable. It has been demonstrated that students' personal evaluations do intervene to alter or modify the effects of cultural deprivation on their educational aspirations and anticipations. Without repeating the separate hypotheses relating each set of attitudes and OCA to educational horizons, it may be concluded that the model was useful and correct in suggesting the importance of these variables for students' educational horizons.

## Summation of Cultural Deprivation and Educational Horizons

The fundamental conclusion of the foregoing analysis is that the relationship of objective cultural advantages to educational horizons is positive and significant.

The examination of this relationship within the major population subgroups confirmed its extensive relevance in the lower class, Negro high school population. Males, senior high school students, and non-college track students all were somewhat more effected by OCA than their school mates. This analysis also suggested that OCA's effects on educational horizons of high school students are cumulative over time.

Use of paired demographic-contextual controls showed some moderate limitations of the OCA-college--desired/expected relationship among the younger students and among males in the college track. The former was taken as reflecting a time-cumulative aspect of OCA effects and the immaturity of junior students. The non-significant association among the college track boys is related to the above, and it also may be partially a function of future sex role pressures.

Finally, the relation of OCA and educational horizons was examined in connection with students' personal attitudes or evaluations of society, race, school, and self. Although contingent upon lack of high racial alienation and lack of a positive self-image, credibility of the hypothesized relation was enhanced by the results of testing with each of the four personal evaluations. Additionally, it was demonstrated that

OCA effects are cumulative with each set of personal evaluation's effects, i.e., they combine to produce greater differences in educational horizons than either did alone.

As a final result of the preceding summation, it is concluded that the conceptual model is useful and correct in asserting the relationship between cultural deprivation and educational horizons and in stating, for that relationship, the importance of the personal evaluations of society, race, school, and self. Linked through the hypotheses, it can be concluded, the fit between the data and the model is good.

# V. PARENTAL PRESSURES AND EDUCATIONAL HORIZONS

The conceptual model declared that a relationship should exist between parental pressures and educational horizons. The model was operationally defined, and a major research hypothesis derived from it specified: The higher the parents' desires for students' education, the higher the students' educational horizons. The main variables, parents' desires (parents pro-college) and college--desired/expected (educational horizons typology), have been operationalized in Appendix B, pages 242 and 252. Their empirical relationship will be examined in this chapter to see: (A) If the specified connection obtains; (B) What its distribution is within demographic and contextual subgroupings of the population; and (C) What effects various personal evaluations of the students may have upon it.

## A. Independent-Dependent Relationship

The distribution of parents' desires or parents pro-college and college--desired/expected is presented in Table 5.1, Appendix D, page 290. The marginal differences on the independent variable are significant: 34 percent of these students have both parents in favor of their attending some four year college or university, 25 percent have one parent pro-college, and 41 percent report no parental support or desires for them to go to college. These figures parallel rather closely the educational horizons of the students:

36 percent both desire and expect college, 18 percent either desire or expect it--but not both, and 46 percent neither desire nor expect to obtain four years of higher education.

In Table 5.1 the independent variable accounts for a 46 percentage difference (PD) between the 60 percent who are high on educational horizons when both parents are in favor of college and the 14 percent when none are pro-college. In this connection it may be noted that 40 percent high on the educational horizons typology when only one parent favors a college education, is somewhat closer to the both pro-college case (21PD) than to none pro-college (25PD). Generally, it is expected that one parent pro-college will have influence that is intermediate between those of both or none, however, unless the departure is much more marked than above, it will not be commented upon. When both parents desire college for students there is no question, but if one is pro-college, there may be only a single parent, or the second parent may be disinterested or opposed to college. However, when none is pro-college, nothing is given about number of parents or their attitudes except failure to desire college. Since it is unspecified for the none category and some parents may be openly hostile in their opposition to college, it is not at all surprising that students in the one category are less like those in none and more like those in the both category in probability of being high on educational horizons.

The empirical evidence from Table 5.1 may be summarized as follows: The relationship of parents pro-college and college--desired/expected is in the direction hypothesized, i.e., it is positive. The association is strong (V=.32), and it is a statistically significant relationship which could occur by chance less than once in a thousand trials. The evidence is good; no grounds for rejection of the research hypothesis appear at this point in the analysis.

The most general implication of these findings is to confirm confidence in the importance of "significant others" as influences on persons' aspirations and anticipations. It is less obvious, but nonetheless noteworthy, that such influence by parents may reinforce and accentuate or it may reduce or off-set other influences on students' desires and expectations for college. School experiences are apt to be interpreted in accord with the students' perceptions of parental desires for their educational futures. It seems likely that some students will be influenced by parents' desires to pick friends with similar desires and plans, thus providing still another source of influence congruent with parental outlook.

Another interesting and socially significant implication is concerned with generational social mobility. Lack of a college attendance tradition within the lower class and among less affluent Negroes was reflected in student reports that only 6 percent of their mothers and only 8 percent of their fathers had any education beyond high school. And yet, 59 percent of the students have one or both parents who want them to get a college degree! This strongly suggests a much higher evaluation of education than is usually suspected of lower class, black adults. While they may be dissatisfied with their own status, the findings strongly imply that the adults have sufficient confidence in the social system to push their chidlren to a high level of academic attainment as the means to vertical mobility and to a better standard of life than they have known themselves.

Although the adults' high evaluation of a college education and apparent faith in the likelihood of mobility in the society may not be entirely justified, it seems probable that a significant number of their children will be able to get the education and skill, then the jobs, and, finally, middle class status. In the present generation of high school students, 36 percent were willing to admit that they lived in a family that was on welfare. Given the parental pressures toward college and the students' response seen in Table 5.1, it is hard to believe that that large a percentage of the next generation will be compelled to make such a confession of social dependency.

## B. Relationship within Population Subgroups

The major research hypothesis relating parents pro-college and educational horizons received substantial support from the evidence presented in Table 5.1, but how extensive is this generalization? What are the limits of its relevance within the lower class, Negro high school population that is being studied? The connection of parents pro-college with college--desired/expected will be examined within the major groupings of the population based on the following variables; (a) sex; (b) grade; and (c) course of study or track.

1. First-Order Demographic-Contextual Controls

a. Sex. Table 5.2 demonstrates that the relationship between parents pro-college and college--desired/expected is positive and significant for both males and females. The association may be slightly stronger among the girls than among the boys (V=.33 to .31), corresponding to the slightly larger effects of parents pro-college on the girls' desires and expectations for college (49 to 44PD). However, it ought to be noted that sex differences between students high on educational horizons are significant only where one parent is pro-college. In that category the boys are more likely to be high on the dependent variable than the girls (46 to 32%).

Th research hypothesis is highly relevant for both sex groups in the population being studied. The very small differences mentioned, probably reflect differences in the sex roles which the students anticipate. Males are dominated by occupational aspects of their future sex role, and thus they are a little more likely to feel that higher education is necessary despite their parents' views. Females are more concerned with the family side of anticipated sex role performance, and no matter how their parents feel, many of the girls are likely to be of the opinion that higher education is not necessary to function as a wife and mother. Inspection of sex differences among those who neither desire nor expect college adds weight to these interpretations.

b. Grade. Table 5.3 gives evidence that the connection of parental desires and college--desired/expected is positive and significant for both grade or age groupings of the high school students. However, the basic relation holds much more strongly among the senior than among the junior high school pupils (V=.38 to .26). This also may be seen in the older students' greater responsiveness to differences in parents pro-college (55 to 38PD). For students who both are desirous of and expect to finish college, the grade differences are small and lack statistical significance expect in the case where both parents are pro-college. In the latter instance, the older students are more apt to be high on the dependent horizons typology (13PD).

Apparently the somewhat greater social-psychological maturity of the senior high school students makes them more open to parental desires. The immediacy of adult sex roles also may contribute to the older students' increased willingness to respond in accord with the thinking of significant adults--in this case, their parents. It is plausible to say that the older students are more likely to be realistic and self-critical in appraising their educational futures vis-a-vis anticipated sex role needs. If the older students can be characterized as adolescents-turning-adult, their younger school-mates may be typlified as children-becoming-adolescent. The junior high students are struggling with the very different problems of adjustment to the on-set of adolescence and the development of new relations with parents and peers.

The issues confronting senior highs are remote and academic for most of the students in junior high school.

c. Course of Study or Track. Students in the college preparatory track are much more likely to have both of their parents pro-college (50 to 26%) and much less likely to have none pro-college than students in other tracks are (23 to 49%). College track students are almost three times more likely to both desire and expect to complete a regular college or university education (64 to 22%). With these big marginal differences, the dramatic contrasts manifest within Table 5.4 are not so difficult to understand.

The relationship of parents pro-college and college desires and expectations is positive and significant for the two track groupings. The association is stronger within the college track (V=.33 to .24). A parallel finding shows that college track students are more effected by parents pro-college (50 to 36PD). All differences between students who are high on educational horizons are significant. Despite rather substantial interaction between the independent and control variables, both are very important to the results. Of these two variables, parents pro-college seems to be the source of the largest differences on college--desired/expected.

Part of the importance of these findings lies in the marked reinforcement that track provides parents' desires in shaping some students' educational horizons. When both of the parents are pro-college and the students are in the college track, 80 percent desire and expect a higher education.

This is in sharp contrast to the 10 percent with like hopes, but who lack any parental support for college and are in the non-college track. In other words, for many students track and parental desires for higher education coincide. School placement has a marked tendency to reflect, perpetuate, and magnify the likelihood of parentally desired educational horizons for a substantial proportion of the student body.

Another noteworthy aspect of the findings is complementary to the one just discussed. For some students track and parents pro-college may be in opposition or conflict in terms of probable educational horizons. Students in the college track who lack parental support for college are less likely to be high on college--desired/expected than schoolmates in other tracks with both parents pro-college (30 to 40%). This suggests the prior significance of influence by parents as well as showing the importance of both variables to the dependent outcome in educational horizons.

The two preceding paragraphs reveal that the effects of track and parents pro-college are cumulative in impact on students' educational horizons. This is confirmed by a comparison among students that have only one parent pro-college. Those in the college course are more than twice as likely to be high on educational horizons (61 to 27%). Since attitudes of the second parent, if there is one, are not known, it is not possible to say that all of these students are in cross-pressures between track and parents' desires. It is likely that some in the college course find no opposition between parental desires for higher education and track, due to the fact that they have only one parent. However, it is clear that students in the non-college track with one parent pro-college are cross-pressured or experience some conflicts of track and parents' desires. Furthermore, where the second parent is present and opposed to college, these students may be confronted with additional problems in the development or expression of their educational horizons.

By way of summary, this examination of demographic and contextual controls of the relationship between parents pro-college and college--desired/expected has disclosed: (a) Although males are more likely to be high on educational horizons, they may be slightly less effected by parents pro-college than the females (V=.31 to .33), and sex differences lack significance expect when only one parent is pro-college. (b) Both grade groupings are equally high on the educational horizons typology, but senior high school students are more effected by parental desires than the younger pupils (V=.38 to .26), however, grade differences lack significance except when both parents are pro-college. (c) College track students are much more likely to be high on college--desired/-expected, and they are more effected by parents pro-college than students in other tracks (V=.33 to .24). (d) Within each demographic or contextual control employed, the predicted relationship of parents' desires and educational horizons was found to obtain, which suggests rather extensive relevance of the hypothesis within the high school population.

Given the differences which were uncovered in the foregoing analysis, what would happen if each of the control variables were further controlled by the other demographic or contextual factors? Some population subgroupings should be located in which the basic independent-dependent relation will be quite strong. Likewise, identification of subgroups where the association is relatively weak also seems to be a probable result. Further specification of the relevance or extensiveness of the relation of parents' desires to educational horizons may disclose consequential differences.

## 2. Second-Order Demographic-Contextual Controls

a. Sex and Grade. Combining sex and grade/age controls produced the results set forth in Table 5.5. At first the table will be used as a sex control so that differences between grade or age groupings can be compared. Then focus of attention may be shifted to study sex differences within each of the two age or grade subgroups.

(1) As a Sex Control. Among the males the relationship between parents pro-college and college--desired/expected is positive and significant. The correlation is stronger for the senior high school males than for the younger boys (V=.36 to .26). Accordingly, of those who both desire and expect a college education, the older boys are more influenced by parental desires (48 to 40PD). None of the other differences by grade are statistically significant. As discussed earlier in this chapter in connection with grade, these findings imply that increasing social-psychological

maturity and immediacy of adult sex roles make the older students more open and responsive to parental guidance.

A parallel description of grade/age differences among females can be found in Table 5.5. The hypothesized tie of parental desires to college--desired/expected is positive and significant. The association is much stronger for the senior high girls (V=.40 to .27). Corresponding to this, a comparison of those who are high on educational horizons shows that the older girls are much more effected by differences in parental attitudes toward higher education than are the younger girls (62 to 36PD). Grade/age differences among the females are clearly significant only where both parents are pro-college, and here the older girls are higher (71 to 54%). The implications of these findings are the same as those for the preceding paragraph.

(2) As a Grade Control. A re-examination of Table 5.5 makes it possible to hold grade/age constant and compare males and females on the parents pro-college and college--desired/expected relationship. It is not necessary to repeat the basic information that the relation is positive and statistically significant in each of the four subtables. Further, unless a pair of subtables are significantly different, none of the earlier information will be repeated. These literary economies will be followed throughout this presentation and discussion of all second-order demographic-contextual controls.

Contrasting the senior high school or older boys and girls confirms the slightly greater responsivenes of the females found earlier in Table 5.2. In the relevant subgroupings of Table 5.5 it is apparent that the older girls high on educational horizons are more effected by parents pro-college (62 to 48PD). Also, the independent-dependent relation is somewhat stronger among the senior high females than among their male age-mates (V=.40 to .36). However, sex differences among those who both desire and expect college lack statistical significance.

Continuing the examination of Table 5.5 discloses only one interesting distinction in the distributions among the junior high school students. Where one parent is pro-college the younger boys are substantially more likely to be high on educational horizons than junior high girls (44 to 28%). They are the source of the finding noted in the discussion regarding Table 5.2.

(3) Final Sex and Grade Comparisons. In terms of the effects of parental pressures on educational horizons, the following pattern emerges: senior high females are most effected by parents pro-college (V=.40), older males somewhat less (V=.36), and junior high females and males least of all (V=.27 and .26). Apparently grade/age differences are more critical than sexual ones. They reflect the social and psychological development or maturation and variations in immediacy of concern with future adult role behavior.

However, for those who both desire and expect to complete a college education, it should be noted that these differences by grade/age among males lack significance. And among females these differences are significant only if both parents are pro-college, and then the senior girls are more likely to be high (17PD). As above, sex differences among senior highs are non-significant, but the younger boys are more apt to be high when one parent favors college (19PD).

It is plausible to infer that if students are high on educational horizons, then neither sex nor grade differences are important. The only two exceptions reflect the greater likelihood of males being high on educational horizons, which was previously established, and the new finding that among the females the seniors are more apt to be high. Both of these exceptions are limited to one of the three groupings on the independent variable. It is appropriate to conclude that the hypothesized relationship of parents pro-college to college--desired/expected is highly relevant to each of the sex and grade/age groupings of the population.

b. Sex and Course of Study or Track. The empirical information needed for analysis of the independent-dependent relationship within combined sex and track subdivisions is given in Table 5.6. First the table will be used as a sex control so differences between tracks can be examined more closely than was possible earlier. Later emphasis may be shifted to study sex differences within each of the tracks.

(1) As a Sex Control. The evidence for the males can be summarized: The association of parents pro-college and college--desired/expected is statistically significant

and in the hypothesized direction. The correlation may be stronger in the college track (V=.32 to .29), and, of the males high on educational horizons, those in the college track may show slightly greater effects of parents' desires (40 to 38PD). All of the differences attributable to track are significant and striking, however, parents pro-college accounts for the larger share of effects.

One important implication of the findings recored in Table 5.6 has to do with the reinforcement of parental desires by track or course of study. To what extent does this occur in the conjunctions of parents pro-college and track? When both of the males' parents favor a college education and the boys are in the college track, 74 percent both desire and expect to obtain such an education. In sharp contrast are a mere 8 percent with these hopes in the negative conjunction of no parents pro-college and enrollment in other tracks. The reinforcement by track is marked.

Another implication is closely related to this one. To what extent are differences in parental desires reduced of off-set by track? In the opposition of the independent and control variables, 35 percent of the boys are high on horizons despite lack of parental support when they are in the college track. However, 45 percent are high on horizons in spite of non-college track enrollment when both parents favor college. The fact that the latter figure is larger suggests that track effects are of less consequence on boys' horizons than parents' educational aspirations are.

Turning to the second page of Table 5.6, the track differences may be examined among the females. In each of these subtables, the relation of the independent and dependent factors is in the anticipated direction direction and is statistically significant. The association is very much stronger in the college track (V=.37 to .22), and, of the girls who both desire and expect college, those in the college track are more than twice as influenced by the parents' desires (60 to 25PD). These last figures indicate a substantial amount of interaction between the independent and control variables. All track differences are significant, however, parents pro-college effects are larger.

Why is the hypothesized relation so much stronger for girls in the college track than in other courses? The answer seems to be, that is the place where parents' desires for a higher education make the most difference for females. Many of the girls in the college track will be academically prepared for four years of higher education. The parents' desires, willingness and ability to make the necessary sacrifices become crucial. With parental support, college is reasonably likely; without it, college is much less likely. No matter how parents of non-college track girls feel about college, few of these girls will be prepared academically.

Another important implication of these findings is parallel to the case of male school-mates. The girls' track may provide a context for reinforcement of parents' desires. In the positive conjunction of both parents pro-college and college track, 87 percent of the girls are high on educational horizons. This is a dramatic contrast to the 11 percent with similar hopes in the negative conjunction. The cumulative impact of track and parental pressures is striking.

If track and parents pro-college are opposed in terms of likely educational horizons, what are the results? When no parent favors a full higher education but the girls are in the college track, 27 percent are high on horizons. However, 36 percent desire and expect college despite being in the non-college track when both parents are pro-college. It is clear that track does mitigate the effects of parental pressures on some girls' educational horizons. However, the figures cited also indicate that parental pressures are more important than track placement by the school.

(2) As a Course of Study or Track Control. Holding track constant enables us to re-examine Table 5.6 and make comparisons of male-female responses to parental pressures on their horizons. In the college track, sex differences are significant only if both parents are pro-college. Here, the females are more likely to be high on horizons (87 to 74%). College track females are much more effected by parental desires than their male track-mates (60 to 40PD), but the basic relation is strong for both girls and boys (V=.37 to .32). The general tendency of girls to do better and enjoy school more than boys, apparently holds in the black, lower class when supported by both parents and by college track.

Using Table 5.6 to contrast boys and girls in the other or non-college course of study discloses that the boys are more effected by variations in parents pro-college (38 to 25PD). Corresponding to this, the boys also reveal a stronger association between parents' desires and horizons (V=.29 to .22). The only statistically significant difference in the non-college track occurs when one parent is pro-college, and then males are more likely to be high (35 to 16%). This phenomenon has been commented on earlier.

(3) Final Sex and Course of Study or Track Comparisons. In terms of the effects of parental pressures on educational horizons, the following pattern emerges: college track females are most effected (V=.37), college track males somewhat less (V=.32) but very like males in the non-college track (V=.29), and non-college track females least of all (V=.22). Apparently track differences are crucial to girls' responsiveness and of little consequence to the boys'.

However, comparing students who desire and expect to graduate from college, it should be noted: All track differences are significant when controlled by sex. Within the college track sex is significant only if both parents are pro-college and then females are more likely to be high on horizons (13PD). In the other tracks sex is significant only if one parent favors college and then males are more apt to be high (19PD). These sex difference findings are similar to previous findings when controlling by sex and grade.

It is concluded that parents pro-college and track have important cumulative effects on college desires and expectations. These influences are mutually reinforcing for some students, but for others they tend to be cancellative. Although the effects of parental pressures are latger, those of track are sizeable also. Sex differences are limited. Tracks serves as the primary context within which parents' desires for higher education either receives the backing of the school and peers or their opposition. Finally, it is clear that the hypothesized relation of parents pro-college and college--desired/expected is relevant to each of the four sex and track subgroupings of the population.

c. Grade and Course of Study or Track. Table 5.7 contains the data for grade and track controls of the basic independent-dependent variable relationship.

(1) As a Grade Control. Within senior high school tracks, parents pro-college and college--desired/expected are significantly and positively related. The association of these variables is stronger in the college track (V=.36 to .27). Accordingly, the older students in the college track are more effected by variations in the number of parents pro-college than those in other tracks (55 to 29PD). All track differences are significant between students who are high on the educational horizons typology. These track effects are almost as great as those attributable to the main variable, however, there is a remarkable amount of interaction between the two factors vis-a-vis college--desired/expected. That is, the presence of either college track or both parents pro-college alters both the amount and level of operation of the

effects of the other factor on the horizons typology.

A noteworthy implication of the findings recorded in Table 5.7 has to do with the previously noted tendency of track to reinforce the effects of parental pressures on students' aspirations and anticipations for college. When senior highs are in the positive conjunction of college track and both parents pro-college, 87 percent are high on horizons, in contrast to 8 percent when non-college track and no parents favor college. The joint impact or cumulative effects of both variables are great.

Another aspect of this which also has been observed before, is the opposition or cross-pressures situation. Of those students who are college track but lack parental support for college, 32 percent desire and expect it, however, 37 percent maintain similar feelings in other tracks when supported by both parents. The fact that the difference is not significant suggests that track and parents' desires have almost equal effects on the horizons of older students.

Turning to the second page of Table 5.7 provides the information for comparisons between tracks among the younger or junior high school students. In each of the subtables the relation of parents pro-college and college--desired/expected is in the hypothesized direction and is statistically significant. As was the case with the older students, the basic relationship is stronger in the college track (V=.31 to .21). Likewise, college track students are more effected by variations in parents pro-college than pupils in other tracks (45 to 29PD). Track differences are significant except where no parent favors college and that difference is in the expected direction. Both track and parents' desires are important, but the latter clearly has a greater effect on educational horizons. There is some interaction between the independent and control variables such that the presence of either positively conditions the effects of the other.

In the positive conjunction of track and parents pro-college 71 percent of the juniors are high on horizons, in contrast to 13 percent in the negative conjunction. The reinforcement of the independent variable by the control was evident; what of the opposition of the two? The opposition of track and parental desires is interesting not only because non-college track students with both parents pro-college are more likely to be high on horizons than college track students lacking parental backing for college (41 to 27%) but also because if even one parent supports their collegiate hopes, non-college track students are as likely to be high on horizons (28%). Although track reduces the effects of parental pressures, it is clear from this that the impact of the independent variable is more substantial.

(2) As a Course of Study or Track Control. Holding track constant makes it possible to re-examine Table 5.7 for grade differences. Within the college track the older or senior high students reveal a somewhat stronger association between the main variables (V=.36 to .31) and are more effected by parents pro-college (55 to 45PD). However, the grade

differences are significant only if both parents favor college, and then the older students are more likely to be high on the horizons typology (87 to 71%). As noted earlier, the older students may be moved toward college by the immediacy of adult sex role concerns, and this tendency is accentuated when two significant others encourage them.

Within the non-college track, the senior highs as a whole show a stronger relation between parents pro-college and college--desired/expected than their younger track-mates (V=.27 to .21), however, between those high on horizons, there are no significant differences attributable to grade.

(3) Final Grade and Course of Study or Track Comparisons. In terms of the effects of parental pressures on college--desired/expected, the following order was found to hold: college track seniors are most effected (V=.36), the college track juniors are next (V=.31), still less effected are non-college track seniors (V=.27), and least effected of all are non-college track juniors (V=.21). Although ranking by grade is consistent, track differences are more critical to the basic relationship than grade/age differences.

However, comparing those who are high on educational horizons, the following can be specified: All track differences are significant except among the junior high students devoid of parental support for college--as usual, even in the exception, college track students are more likely to be high (14PD). Grade/age differences are not significant except among college track students with both parents pro-college, and then the older students are more likely to be high (16PD). In spite of these two exceptions it is apparent that if students are high on educational horizons, then track is much more important than grade/age. Probably the grade difference will decrease with the younger students' maturation and the shifts in orientation to parents and future role functions.

It is concluded that parents pro-college and track have important cumulative effects on college--desired/expected. Even though the effects of parents' desires are larger, those of track are also large. The grade differences are limited. Finally, it is evident that the hypothesized relation of parental pressures and educational horizons is relevant for each track and grade subdivision of the population.

### 3. Summation of Demographic-Contextual Control Findings

a. Sex. (1) Although males are more likely to be high on educational horizons (39 to 33%), their horizons may be slightly less effected by parents' desires (V=.31 to .33), and sex differences lack significance except when one parent is pro-college (14PD). (2) When controlled by grade, among the older or senior high students it appears that the girls' horizons are more effected by parental pressures (V=.40 to .36), but if high on horizons, then sex differences are not significant. In junior high school the sexes seem to be equally effected (V=.26 and .27), and the only notable difference is when one parent is pro-college the boys are more likely to be high (19PD). (3) If the main relation is controlled by track, within the college preparatory course the females' horizons are more influenced by parents' desires (V=.37 and .32). Here, the sex differences are significant between those high on horizons when both parents are pro-college--then girls are more apt to be high (13PD). In the non-college track males' horizons are more strongly effected by parental pressures (V=.29 to .22), but sex is significant only when one parent favors college, and then the males are more likely to be high (19PD). (4) Thus, sex differences tend to be small with females generally more responsive to parents pro-college but with males usually more apt to be high on educational horizons. Variations attributable to sex increase when the basic relation also is controlled by grade/age and track or course of study.

b. Grade. (1) Both grade groupings are equally high on the educational horizons typology, but senior high students are more effected by parental desires than the younger pupils (V=.38 to .26). Grade differences between those high on horizons lack significance, except when both parents are pro-college and then the older students are high more often (13PD). (2) If the main relationship also is controlled by sex, among the males the senior highs' horizons are more effected by parental pressures (V=.36 to .26). However, the grade differences are not significant between the males who desire and expect college. Older girls show greater effects of parents' desires on their collegiate futures than younger girls (V=.40 to .27). Grade/age reveals a significant difference among females when both parents favor college, and then the senior girls are more likely to be high on horizons (17PD). (3) When controlled by track, the senior or older students are more influenced in educational horizons than their younger school-mates. This is true both in the college course (V=.36 to .31) and in the other tracks (V=.27 to .21). However, significant grade/age differences emerge only in the college track and only among students who have both parents favoring college. As usual, the older students are more apt to be high (16PD). (4) Therefore, grade differences tend to be moderate with the senior high students consistently more influenced by parental pressures than the younger students. Contrasting pupils who are high on educational horizons discloses that grade differences are significant only when both parents favor college; then the older pupils are usually high.

c. Course of Study or Track. (1) College track students are much more likely to be high on college--desired/expected (64 to 22%), and they are more effected by parents pro-college than students in other tracks (V=.33 to .24). All track or course of study differences between students high on horizons are significant. (2) When the basic relationship is also controlled by sex, among the males college track students' horizons are more influenced by parents pro-college (V=.32 to .29). College track females also show a stronger response than girls in other tracks (V=.37 to .22). (3) Adding grade/age controls to track discloses that college track students are more influenced in their horizons whether they are in senior (V=.36 to .27) or in junior high school

(V=.31 to .21). However, among the junior high pupils that lack parental support for college, those in the college track are not significantly more apt to desire and expect college (14PD). (4) Without exception, course of study and parents pro-college have noteworthy cumulative effects on educational horizons. If track were merely a reflection of parental desires or of students' pre-existing educational horizons, it would not be germane to this study. However, reinforcement and opposition between track and parents pro-college demonstrate both variables are related to but distinct from educational horizons as well as from each other. Students in the college track consistently are more effected by parental pressures and are more likely to be high on horizons than students from other tracks.

d. Final Evaluation of Demographic-Contextual Controls. The separate use of the basic sex, grade, and track controls disclosed positive and significant associations of parents pro-college with college--desired/expected. These observations suggested extensive relevance for the research hypothesis within the black, lower class, school population being studied. However, it seemed important to combine the controls two at a time to see what demographic or contextual limitations should be placed on the hypothesis. Completion of this analysis has failed to uncover a single subgrouping within which the independent and dependent variables are not positively and significantly related. It seems reasonable, appropriate to conclude that the relevance is extensive.

Given the extensive relevance, and since the effects of parental desires on educational horizons have been significant and in the predicted direction, there appears to be no empirical grounds at this juncture for questioning the utility or validity of the research hypothesis. However, prior to drawing final conclusions, it is necessary to test the basic relation to see if it can be explained away or interpreted as due to some third factor. It was demonstrated in an earlier chapter that student evaluations are significantly associated with educational horizons. Perhaps one set of evaluations is the source of the correlation between the parents pro-college and the college--desired/expected.

## C. Effects of Personal Evaluations on the Relationship

The conceptual model predicted a relationship between parental pressures and educational horizons which would be modified by students' personal evaluations of their society, race, school, and self. That model was operationalized, and specific research hypotheses derived from it will be given below at the appropriate places in the text. Appendix B contains the relevant working definitions.

### 1. Effects of Societal Evaluations

The working definition for societal evaluations is called societal alienation or attitudes toward society. It already has been demonstrated that: The less the students' societal alienation, the higher their educational horizons.

In this chapter evidence has been accumulated for the hypothesis: The higher the parents' desires for students' education, the higher the students' educational horizons. The present problem is to ascertain whether or not the societal evaluations explain away or otherwise condition or modify the latter relationship. The hypothesis now to be tested is: The higher the parents' desires and the less the societal alienation, the higher the students' educational horizons. The distribution of parents pro-college (parents' desires) and college--desired/expected (educational horizons), controlled by societal alienation, is presented in Table 5.8.

Students who are high on societal alienation are more likely to have no parents pro-college (45 to 37%), and they are less likely to both desire and expect a full college education (30 to 44%). In each of the controlled subtables, the association of parents' desires and educational horizons is statistically significant and in the direction predicted. The relationship is probably no stronger in the less alienated group (V=.32 to .31), however, parents pro-college has the larger effect on the less alienated students who are high on the horizons typology (50 to 41PD).

Comparisons between students who desire and expect college reveal, among each parents pro-college grouping, that those with positive attitudes toward society are more likely to be high on horizons than are their more alienated colleagues. However, the difference among those devoid of parental support for college is a non-significant one (5PD).

Lack of parental support for high educational horizons seems to be similar to societal alienation in results. Societally alienated parents are probably less likely to support high educational horizons, and they also may transmit this alienation to their children. Other potential sources of negative feelings toward society includes cultural deprivation in the home--examined in the preceding chapter--and experiences that lead to negative racial evaluations, which will be examined in the next section of the present chapter.

The cumulative effects of attitudes toward society and parents' desires are most clearly seen in the conjunctions of these two variables. Among the less alienated students with both parents pro-college, 67 percent both desire and expect to obtain a higher education compared to 12 percent in the negative conjunction. The latter students maintain high educational horizons despite negative attitudes toward society and the lack of parental support for college.

In the disjunctive opposition of the independent and intervening variable, the greater role of parents' desires becomes apparent. When no parent favors college and students are low on alienation, 17 percent are high on educational horizons. However, when both parents are pro-college and students are highly alienated, 54 percent desire and expect college. Controlling each variables' effects on horizons by the other, it is evident that the largest difference attributable to societal alienation is half as big as the smallest difference due to parents' desires (18 to 41PD).

It can be concluded that the evidence in Table 5.8 supports the hypothesis relaing parents pro-college and societal alienation to the educational horizons typology. The dependent effects of both variables are cumulative and largely independent, however, it must be specified that variations by alienation are contingent upon some parental support for college. Since the basic relation of parents' desires and educational horizons was maintained when tested by student attitudes toward society, it is further concluded that an additional argument has been added in behalf of the research hypothesis which specified that interrelationship.

## 2. Effects of Racial Evaluations

The set of indicators or measure of racial evaluations is named racial alienation or racial attitudes. Unlike most measures which are concerned with feelings about others, this variable deals with attitudes subjects hold toward their own racial group. It has been demonstrated that: The less the students' racial alienation, the higher their educational horizons. Thus far in the present chapter the data have supported the assertion: The higher the parents' desires for students' education, the higher the students' educational horizons. While it is possible for racial alienation to explain away this relation or interpret it as non-causal, it is hypothesized that racial attitudes and parental desires have cumulative effects on college desires and expectations. The hypothesis specifies: The higher the parents' desires and the less the racial alienation, the higher the students' educational horizons. The relationshop of parents pro-college and college--desired/expected, controlled by racial attitudes, is to be found in Table 5.9.

In each of the three subtables, the correlations of parents' desires and the educational horizons typology are significant and in the direction predicted. Although the differences are small, the association is strongest within the low alienation group (V=.35), intermediate in the high alienation subtable (V=.33), and weakest among moderately alienated students (V=.31). Comparing students who are high on college desires and expectations results in the same order by responses to parents' desires (52, 46, and 43PD). Whether these differences are significant or not is unclear.

A closer inspection of Table 5.9 and t-testing the marginal and partial differences between the high and medium racial alienation subtables reveals no statistically significant differences. Chance is a sufficient explanation for the findings. When the low alienation group is compared with either the medium or high group a different picture emerges; these differences are significant. Because of these findings and to facilitate discussion, no further comment will be made regarding the intermediate or moderately alienated group. As far as parental influences on educational horizons are concerned, the curcial division is between those who are low on racial alienation and those who are not. Even a little alienation significantly decreases the likelihood of being high on college desires and expectations.

The effects of racial attitudes on the college-bound students make the least difference among students having no parents pro-college (9PD) but more substantial differences when there is some parental support favoring college (15 and 22PD). It is plausible to infer that as far as educational horizons are concerned lack of parents pro-college may be a type of alienation. A similar findings was noted when the relation was controlled by societal alienation. Minimally, it is reasonable to say that some degree of parental backing for college is a condition for marked alienation effects.

The full rane of cumulative effects due to racial alienation and parents' desires can be seen in their conjunctions on college--desired/expected. When low on alienation and both parents are pro-college, 72 percent are high on the horizons typology. Similar educational horizons are found in only 11 percent of those who lack parents pro-college and are characterized by negative racial attitudes.

Students that are cross-pressured between parents' desires and racial evaluations show the influence of both factors, but they also reveal the greater importance of the parental pressures. Among high alienation students exposed to both parents pro-college, 57 percent respond with desire and expectation of completing a college education. However, 20 percent of the non-alienated students devoid of parents pro-college manage high horizons. The largest difference due to racial attitudes alone is half as large as the smallest difference due solely to parental pressures (22 to 46PD).

Both variables are important, but parents' desires accounts for more variation in the dependent variable.

By way of summation, it can be stated that parental pressures and racial evaluations have a significant influence on desires and expectations for college. The effects of both variables cumulate in the manner hypothesized, and the evidence is clear and unambiguous despite the much larger role of parents' desires. It is concluded that: The higher the parents' desires and the less the racial alienation, the higher the students' educational horizons. Since the major research hypothesis relating parents' desires to educational horizons survived the test by racial alienation, its credibility has been strengthened.

### 3. Effects of School Evaluations

The measure or operational indicators of school evaluations are attitudes toward school. Previously it was shown that: The more positive the students' attitudes toward school, the higher their educational horizons. The present problem is to determine whether or not school evaluations explain away or otherwise condition or modify the basic relation of parents pro-college and college--desired/expected. It is expected that school evaluations and parental desires have cumulative effects on educational horizons. The hypothesis states: The higher the parents' desires and the more positive the attitudes toward school, the higher the students' educational horizons. The distribution of the main factors, controlled by school attitudes, is given in Table 5.10.

The original connection of parents pro-college and college--desired/expected discloses marked marginal variations when controlled by school evaluations. Students with positive school attitudes are more apt to have both parents favor college (37 to 29%) and less likely to have none pro-college than students characterized by negative attitudes toward school (36 to 49%). The percentage high on educational horizons declines sharply by attitudes toward school (from 49% positive, 39% neutral, to 20% negative). It should be pointed out that students in the neutral or moderate attitude subgroup are much closer to those with positive attitudes than to the negative grouping (10 to 19PD).

In each of the three subtables of Table 5.10, the relation of parents pro-college and college--desired/expected is positive and statistically significant. The correlation is strongest within the neutral attitudes group (V=.37) and of about equal magnitude within the positive and the negative groups (V=.30 and .28). This ordering suggests that students who are strongly positive or negative in their attitudes to school tend to have their minds made up while the moderate or neutral evaluation students are more open to guidance by parents on higher education. Students with positive school attitudes are prone to desire and expect college no matter what parents desire. Conversely, negative evaluations of school lead other students to be less likely to be high on educational horizons regardless of parental pressures.

Comparisons between those who are high on horizons show greater differences in response to parents' desires in the neutral and positive than in the negative subgroup (49 and 48 to 33PD). It is obvious that both variables have important consequences for educational horizons. Parental pressures account for the larger share of dependent results. The desires of both parents for or against college more than off-set students' attitudes toward school. When no parent supports college but the students are positive in evaluation of school, 23 percent desire and expect college. However, if both parents are pro-college and the students are negative about school, then 39 percent are high on horizons.

The cumulative effects of the independent and intervening variables are most readily observed by contrasting the positive and negative conjunctions of these two factors. The positive conjunction occurs among students who have both parents pro-college and who are positive in their school attitudes. In this event 71 percent aspire to and anticipate finishing a college degree. However, these horizons are held by a mere 6 percent of those in the negative conjunction of no parents pro-college and negative school attitudes.

Inasmuch as the effects of parents pro-college and attitudes toward school on college--desired/expected are positive, cumulative, and significant, it is concluded that: The higher the parents' desires and the more positive the attitudes toward school, the higher the students' educational horizons. Furthermore, since testing by school evaluations or attitudes neither wiped-out nor significantly altered the major independent-dependent correlation, this analysis will be regarded as an additional argument enhancing confidence in the hypothesis which predicted: The higher the parents' desires for students' education, the higher the students' educational horizons.

### 4. Effects of Self Evaluations

Self-image is the working definition of self evaluations. In an earlier chapter it was established: The more positive the students' self-image, the higher their educational horizons. Now the task is to ascertain if the basic connection between parents' pro-college and college--desired/expected can be explained away or interpreted as a non-causal correlation due to mutual linkage via self-image. Despite such a potential outcome, cumulative effects are expected. It is hypothesized: The higher the parents' desires and the more positive the self-image, the higher the students' educational horizons. Table 5.11 contains the necessary data for a test of this hypothesis and of the main relation of parents pro-college and college--desired/expected, when controlled by students' self-image or self evaluations.

In each of the self-image subgroups the association between parental desires and the educational horizons typology is statistically significant and in the hypothesized direction. The correlation is strongest among students with a positive self-image, average in the neutral or medium group, and weakest in the negative self-image subtable (V=.36, .32, and .25). Of course, percentage differences between those high on college--desired/expected follow the same order of joint effects (54, 47, and 35PD).

One important implication is that the students with a low or negative self-image and who need guidance most of all are the least open to such assistance from their parents. This further suggests a crucial function for the school's counselling program is to help these students develop a realistic self-appraisal vis-a-vis their educational horizons. This is a function which the school attempts to perform for all students, but special attention is needed here because effective parental help seems to be least likely for students handicapped by a negative self evaluation.

Marginal distributions are significantly different for the polar self-image groups. Students with a positive self-image are more likely to be exposed to both parents pro-college (40 to 25%) and less likely to lack parental support for college than low self-image school-mates (30 to 50%). Parallel to these findings, those with a positive self-image are much more apt to desire and expect college than the others (45 to 28%). The marginal data are important because they mean that parental desires have an impact on students' self-image as well as upon their desires and plans for higher education. This is not surprising, given that parents are both significant others and the primary agents in facilitating the development of the self.

Intimately related to the foregoing items are the following: Among students who have no parental support for college, the likelihood of both desiring and expecting college is quite low and the variation by self-image is due to chance (3PD). Among those with one parent pro-college, the probability of being high on horizons is doubled, but the difference attributable to self-image is barely significant (14PD). When both parents favor college, the likelihood is further increased and the difference on self-image is unambiguously significant (17PD). Although some of the statistical tests are based on small marginal or cell frequencies, it is clear that some parental support for college is a contingent condition for self-image effects on educational horizons.

This means that the effects of parents' desires alone are much larger than those of self-image alone, but they cumulate to produce the results in Table 5.11. In the positive conjunction of both parents pro-college and high or positive self-image, 67 percent are high on college desires and expectations, in contrast to 15 percent in the negative conjunction. Among those students who have both parents pro-college, the probability of being high on educational horizons increases from the low self-evaluation group to the medium, to the high. The same is true for students with one parent pro-college. These effects cumulate as expected except that they are uniformly low when no parents are pro-college.

The findings may be summarized: Although parental desires' effects are much greater, both the self-image and parents pro-college factors are relevant to college--desired/ expected. The joint effects of both variables cumulate in the manner hypothesized, but it is necessary to specify that self-image effects are contingent upon some parental desires for college. With this specification in mind, it is concluded that: The higher the parents' desires and the more positive the self-image, the higher the students' educational horizons. The present evidence further expands the basis for confidence in the major research hypothesis relating parents pro-college to their children's educational horizons.

5. Summation of Effects of Personal Evaluations

The relationship between parents pro-college and college--desired/expected was tested by each of the four sets of personal evaluations. In no instance was this relationship explained away or interpreted as a non-causal association due to mutual linkage via the test variable. Neither negative evidence nor serious problems were discovered. In all cases, the controlled subtable correlations were in the direction hypothesized, and none of them could have occured by chance as often as once in a thousand times. The empirical arguments in favor of the hypothesis are quite impressive. Therefore, it is concluded: The higher the parents' desires for students' education, the higher the students' educational horizons.

Each of the hypotheses separately relating students' attitudes toward society, race, school, and self to parents' desires and their joint effects on educational horizons were supported. In all cases, these effects were in the predicted direction. The predetermined level of significance was met in all but two instances. In these exceptions it was specified that: some parental desire for college is a contingent condition for effects by societal alienation and self-image. It has been demonstrated that students' personal evaluations do intervene to cumulatively modify or alter the effects of parental pressures on educational horizons. The separate hypotheses relating each set of attitudes and parental desires to educational horizons will not be repeated, but it can be concluded that the model was useful in predicting the importance of these variables for student aspirations and anticipations concerning their educational futures.

## Summation of Parental Pressures and Educational Horizons

The principle conclusion of the foregoing analysis is that the relationship between parental pressures and the students' educational horizons is positive and significant.

This relation was found to have broad or extensive relevance within each of the major demographic or contextual subdivisions of the lower class Negro high school population. Females, senior high school, and college track students all were somewhat more effected by parents pro-college than their school-mates. Significant sex and grade/age differences were limited to students with some parental desires for college.

Utilization of pairs of demographic-contextual controls failed to disclose a single subgrouping within which the independent and dependent variables were not positively and significantly correlated at the .001 level. Thus there were no limitations placed on the relevance of the main hypothesis; it is highly relevant within each of the segments of the population being analyzed.

Finally, the interrelation of parents pro-college and college--desired/expected was examined in connection with students' personal attitudes or evaluations of their society, race, school, and self. Credibility of the hypothesized relation was greatly enhanced by the results of this testing. Additionally, it was shown that effects of parents' desires are cumulative with each set of personal evaluation effects, i.e., they combine to produce systematically greater differences in educational horizons than either did alone. In all cases, the direction hypothesized was found and chance could have accounted for subtable results less often than .001.

The predictive utility of the conceptual model has been demonstrated in its assertion of the relation between parental pressures and educational horizons, and in stating for that relationship, the importance of personal evaluations or student attitudes. Inasmuch as the hypotheses derived from the conceptual model have been sustained by the empirical findings, it is concluded that the fit between the data and the model is good.

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# VI. PEER INFLUENCES AND EDUCATIONAL HORIZONS

The conceptual model predicted a relation between peer influences and educational horizons. The main research hypothesis derived from it asserts: The higher the peers' educational horizons, the higher the students' educational horizons. The main variables, friends' plans (peers' educational horizons) and college--desired/expected (educational horizons typology), have been operationalized in Appendix B, pages 243 and 252. The empirical relation will be examined in this chapter to see: (A) Does the specified connection occur? (B) Does it hold within major subdivisions of this population? (C) What effects do students' personal evaluation have upon the relationship?

## A. Independent-Dependent Relationship

The distribution of friends' plans or peers' educational horizons and college--desired/expected is presented in Table 6.1. The population distribution indicates that 31 percent of the friends plan on attending a four year college or university immediately after high school, and the remaining 69 percent have other plans including junior college or business school, vocational or technical training, military, or work. Similarly, 36 percent of the students both desire and expect to obtain a college education, 18 percent either desire or expect such an education, and 46 percent neither desire nor expect it. The effect of the independent factor creates a difference of 35 percentage points (PD) between friends planning on college and friends with other plans. Despite the lower class environment and the general lack of friends planning on college, among those with college-bound friends, 61 percent both desire and expect to obtain a college education. In contrast with that, only 25 percent of those lacking friends with college plans are high on horizons.

The empirical evidence from Table 6.1 may be summarized: The basic relation of friends' plans and college--desired/expected is in the direction hypothesized, i.e., it is positive. The association is strong (V=.34), and it is statistically significant. It could occur by chance less than once in a thousand repetitions. The evidence is good. No grounds for rejection of the research hypothesis appear.

The most general implication of these findings is to further confirm confidence in the importance of significant others as influences on persons' aspirations and anticipations. Friends constitute an important reference group for high school students. They provide a context by differential association, within which the impacts of other factors on educational horizons can be reduced or reinforced. As positively valued and significant peers, friends are in a particularly powerful position to provide effective socialization. Their post-high school plans are very apt to become models which school-mates will seek to emulate. School experiences are likely to be interpreted in harmony with significant peers' educational values, desires, and plans. The parents' preferences for students' educational horizons will receive group support, be ignored, or be undercut by peer attitudes. Students' close friends in high school may be the primary sources of societal and racial evaluations and probably have a fundamental impact on self-image.

Given the peers' lower class background and minimal educational attainments by their parents, it seems plausible to infer that college-bound friends are mobility oriented. It is hard to believe that they desire a college education simply for education's sake. It is probable that they have a high evaluation of education as a means to social acceptance and a better standard of living. Socialization by mobility oriented significant peers should provide horizons support by accentuating the mobility aspirations of many students.

### B. Relationship within Population Subgroups

The major research hypothesis relating peer influences and educational horizons received substantial support from the evidence presented in Table 6.1, but how extensive is the generalization's relevance? What are its limits for the lower class, black population being studied? The relation of friends' plans and college--desired/expected will be examined in subgroupings based on: (a) sex; (b) grade; and (c) course of study or track. The initial analysis is to use one of these controls at a time. Then pairs of them will be used for a second-order analysis. The relation of each control to educational horizons is given on page 72f.

## 1. First-Order Demographic-Contextual Controls

a. Sex. Table 6.2 demonstrates that the relationship between friends' plans and the educational horizons typology is positive and statistically significant both for males and females. The relationship is much stronger among the high school girls (V=.42 to .28), showing they are more effected by friends' plans than the boys are (43 to 29PD). When friends are planning on college the sex differences are not significant, however, when friends have other plans the males are significantly higher on educational horizons than the females (30 to 20%). It is clear that the research hypothesis is highly relevant for both males and females.

The fact that the males are less influenced by peers than the females may be due to future sex role pressures. While most of the girls may expect to marry and do not feel higher education is essential to that role, the boys' educational plans must be appropriate to the type of occupations they are seeking. This means that the males are not as free to respond to peer influences on educational horizons as the females are. The boys may be constrained to make plans for their futures that are at variance with their friends' plans. Of course domestically oriented females need to be sensitive to plans of their friends, particularly to the boys' plans as part of the husband-hunting game.

The foregoing remarks are closely related to the question of social mobility. The girls' status will be fixed by their future husbands' status. For boys a satisfactory occupational career and the possibility of rising out of lower class status are dependent on education. Mobility oriented males are more likely to be willing to turn their backs on plans of peers who are not college-bound.

b. Grade. Table 6.3 shows that the relationship of friends' plans or peer influences and college--desired/expected is positive and significant for both grade or age groupings. The basic relationship holds a bit more strongly among the senior high than among the junior high school students (V=.38 to .32). However, the older students who are high on educational horizons show only slightly more responsiveness to friends' plans than their younger school-mates (38 to 36PD). All differences ascribable to grade lack statistical significance; chance is a sufficient explanation.

c. Track or Course of Study. Students in the college preparatory track are more than twice as likely to have friends planning on college (49 to 22%), and they are almost three times as likely to be high on educational horizons as students in other tracks (64 to 22%). Given these marginal distributions, the dramatic differences revealed in Table 6.4 should not come as a complete surprise.

The relationship between friends' plans and college desires and expectations is positive and significant in both courses of study. The relationship is much stronger within the college track than within the other tracks (V=.36 to .21). Students in the college course of study are much more influenced by friends' plans than students in other courses of study (35 to 20PD). All differences between students who are high on educational horizons are significant, and track effects are somewhat larger (44 and 30PD) than those due to friends' plans (35 and 20PD). However, there is some interaction between the two variables indicating that they are not completely independent in their effects on educational horizons. Inasmuch as track is a context in which friends have opportunity for differential association and socialization, this is not surprising but expected.

Part of the importance of these findings lies in the marked reinforcement that track provides peer influences in shaping some students' educational horizons. When friends are planning on college and students are in the college track a positive conjunction is formed. In that conjunction 82 percent of the students involved are desirous of and expect to obtain a college education. This is in sharp contrast to the 17 percent with similar hopes in the negative conjunction of friends with other plans and non-college track. In other words, track not only reflects differences in friends' plans, but for many, it magnifies and extends these influences.

Another important aspect of the findings is complementary to the one just discussed. Under certain conditions friends' plans and track are in opposition to each other in terms of likely educational horizons. Students in the college track who have friends with non-college plans are more likely to expect college themselves than students in other tracks whose friends are planning on college (47 to 37%).

For all of these students it is apparent that track reduces or off-sets some of the effects of friends' plans on their educational horizons.

The two preceding paragraphs suggest that the effects of friends' plans and course of study are cumulative in their effects on students desires and expectations for higher education. While track does reflect students' academic choices and the school's evaluation and placement of students, it is important as a social context within which differential association and socialization by peers may take place. For many students track represents a social context within which friends' plans can exert maximal effect with minimal academic cross pressures; this is the case in the conjunctions of the two variables. However, for the other students track is at variance with friends' plans. In the opposition of track and friends' plans, the students are cross-pressured--while track and immediate peers imply one outcome on horizons, the significant peers (friends) pull in another direction.

By way of summary, this examination of personal and contextual controls of the connection between friends' plans or peer influences and educational horizons has disclosed: (a) Although males are slightly more likely to be high on educational horizons, they are less effected by friends' plans than females (V=.28 to .42), however, sex differences are statistically significant only when friends have plans other than college. (b) The senior high school students reveal a stronger relation (V=.38 to .32), however, between students high on horizons no significant difference was found by grade or age. (c) Students in the college track are much more apt to be high on horizons, and they are more effected by friends' plans than students in the non-college tracks (V=.36 to .21). (d) Within each demographic or contextual control utilized, the original relationship of friends' plans and college--desired/expected was found to hold, which suggests rather extensive relevance of peer influences on educational horizons within the lower class black high school population.

Since some interesting and a few dramatic differences were uncovered in the preceding analysis, what would be the results if each of these variables subdividing the population were further controlled by each of the other controls? Some groups should be located in which the original independent-dependent relationship will be strengthened markedly. Conversely, isolation of some subgroups where the relation of friends' plans to educational horizons is quite weak also seems probable. Further specification of the extensiveness or limitations of the basic relationship can be achieved by means of second-order or "stacked" controls.

### 2. Second-Order Demographic-Contextual Controls

a. Sex and Grade. A combination of grade and sex controls were used to procure the results set forth in Table 6.5. First this table will be employed as a sex control so differences between grade groups can be studied. Then focus of interest may be shifted to examine sex differences within both of the grade/age groupings of the population.

(1) As a Sex Control. The junior high school boys show slightly more effects of friends' plans than their older school-mates (34 to 27PD). In each of the subtables the relationship of friends' plans to college--desired/expected is positive and statistically significant, as was hypothesized. The association between the two factors may be a little stronger among younger boys (V=.29 to .26), but differences attributable to grade/age lack significance among males.

A parellel discription of grade differences among females can be abstracted from Table 6.5. The basic relationship between friends' plans and educational horizons is positive and significant statistically for both groups. The older girls are more effected by peer influences (49 to 37PD). The basic independent-dependent relation holds more strongly among senior high females than among the junior highs (V=.50 to .34). Grade differences between girls who are high on the horizons typology are significant only if friends' plans are not for college. In this case the younger girls are more apt to be high on horizons than the older ones (25 to 15PD). It seems likely that as age increases so does the immediacy and importance of the female role of home-maker--and so does the importance of husband-hunting. This may account for girls' increasing sensitivity or responsiveness to friends' plans.

(2) As a Grade Control. A re-examination of Table 6.5 enables us to hold grade/age constant and make comparisons of friends' plans and educational horizons between the males and females. Contrasting senior high boys and girls

confirms the points previously established in the analysis of Table 6.2, the original sex control table. Among senior highs the girls are almost twice as influenced by friends' plans as the boys (49 to 27PD). As a consequence, friends' plans and college--desired/expected are much more strongly related among the older females than among their male age-mates (V=.50 to .26). Except for a slight increase in the effects among females, the findings and interpretations are parallel to those given earlier re Table 6.2 (pages 161f.).

Continuing the examination of Table 6.5 discloses the junior high school students do not differ significantly by sex either on the relationship between friends' plans and educational horizons or on percentages desiring and expecting a full college education.

(3) Final Sex and Grade Comparisons. In terms of the association between peer influences and educational horizons, the following order emerges: senior high females are most effected by friends' plans (V=.50), younger girls are much less influenced (V=.34), junior boys next (V=.29), and older males least of all (V=.26). Apparently, the sex differences are more important than grade/age differences. These findings suggest that the divergent sex role orienta- and emphases discussed earlier are more important than the temporal immediacy of assuming adult roles.

However, for those who both desire and expect to complete a college education, it should be noted that sex differences are significant only among the older students whose friends have non-college plans, and then, the males are more likely to be high (16PD). Only among females with non-college friends are the grade/age differences significant statistically. In that event, the younger or junior girls are a little more apt to be high on horizons (10PD). It is reasonable to infer that if students are high on the educational horizons typology, then neither sex nor grade/age differences are of major importance. Out of eight possible differences only two are significant. It seems appropriate to conclude that the hypothesized relation between friends' plans and college--desired/expected is highly relevant for each of the sex and grade/age subgroups in the population.

b. Sex and Course of Study or Track. The data presented in Table 6.6 will facilitate a comparison of the independent-dependent relationship between combined sex and track or course of study subgroupings.

(1) As a Sex Control. The empirical findings for the males can be summarized: The correlation of friends' plans and college--desired/expected is in the hypothesized direction and is statistically significant. The association is stronger in the college track (V=.29 to .19), and, of the boys high on educational horizons, those in the college track show greater responsiveness to friends' plans (28 to 19PD). All differences by track are significant and striking, and track effects are greater than friends' plans. This may be due to the intimate association of track with occupational preparation. It also may reflect the track impact of school

and peers in general while significant peers--friends--may or may not be in the same track.

One important implication of the findings recorded in Table 6.6 has to do with the reinforcement or congruent effects of track and friends' plans. Here, track peers usually include frineds. When the boys' friends have college plans and the boys are college track, 80 percent desire and expect college. This is in contrast to the 21 percent with similar hopes despite being in the non-college course with friends who lack college plans. Track reinforcement of independent variable effects on educational horizons is marked.

A closely related implication is concerned with the extent to which the effects of friends' plans are off-set or reduced by lack of congruence with course. Among college track students whose friends' plans are other than college, 51 percent are high on educational horizons compared to 40 percent in other tracks whose friends are planning on college. The fact that the former figure is larger indicates track effects are of greater consequence for males' educational futures than friends' plans are.

Turning to the second page of Table 6.6, the track differences among the females can be examined. Within each subtable the main research relationship is positive and is significant. The association is twice as strong within the college track (V=.50 to .23), and among the girls who are high on educational horizons, those in the college course display more than twice as much effects of friends' plans

(47 to 21PD). These last figures imply marked interaction between the independent and control variables. All track differences are significant. The implications of these findings are analogous to the case of males, however, marginal differences noted in the third chapter indicate that females are much more apt to have friends in their own track than the males are.

The preceding remarks suggest that girls will find even greater track reinforcement of friends' plans than the males did. In the positive conjunction of college track and friends planning on college, 86 percent of the girls desire and expect college. This contrasts rather sharply with the 13 percent with these views in other tracks when friends do not have college plans. If track enrollment implies one outcome on educational horizons but friends' plans lead off in another direction, what are the results for these girls? College track females whose friends have other plans are only slightly more likely to be high on horizons than non-college track girls with college-bound friends (40 to 35%). These figures also imply that track has a slightly larger role in determining educational futures than friends plans do.

(2) As a Course of Study or Track Control. If track is held constant, Table 6.6 may be re-examined for male and female comparisons. In the college preparatory course, the girls reveal a much larger response to variations in friends' plans (V=.50 to .29), but among students high on horizons, sex differences do not have statistical significance.

Within the other or non-college courses of study, the females may be more effected by friends' plans (V=.23 to .19). Sex differences are significant, but small, among students whose friends have non-college plans for post high school. In this event, males are a little more likely to be high on horizons (7PD). Even in the non-college tracks it seems that sex differences are hardly noteworthy.

(3) Final Sex and Course of Study or Track Comparisons. In regard to the effects of peer influences on educational horizons, the following pattern emerges: the college track females are the most effected by friends' plans (V=.50), college track males are much less influenced (V=.29), next are females in other tracks (V=.23), and least are males in other tracks (V=.19). It is clear that track differences are more important, but within tracks, the girls' horizons are more influenced by friends' plans than the boys' are.

Comparisons among students who both desire and expect to graduate from college, reveal that all track differences are significant when controlled by sex. When track is used as the control sex is significant only in non-college track and only if friends' plans are non-college, then the difference shows the males a bit more apt to be high on horizons.

It was observed that friends' plans and track have important cumulative effects on college desires and expectations. For some students the effects of both variables are in the same direction, they are reinforcing or congruent; for other students they are in opposition or tend to cancel the effects of the other on educational horizons. Friends' plans and track are both important to the dependent outcome, however, track generally accounts for more variation in the result. Track serves as the school context within which academic and peer influences are exerted and friends' plans may be backed or counteracted.

Finally, it should be noted that the hypothesized association between friends' plans and college--desired/expected is relevant within each of the four track and sex subgroupings of the high school population.

c. Grade and Course of Study or Track. The evidence for examination of grade/age and track controls of the hypothesis is to be found in Table 6.7.

(1) As a Grade Control. Within the two senior high school tracks, friends' plans and college--desired/expected are positively and significantly related. The association of these variables is twice as great in the college course (V=.38 to .16). Likewise, the older students in the college track are more effected by differences in friends' plans than age-mates in other courses of study are (36 to 13PD). All track differences between those who are high on the educational horizons typology are significant. Differences due to track alone are greater than those ascribed to friends' plans alone. Nonetheless, both variables are important, and there is notable interaction between them. This means that the presence of either friends planning on college or college track enrollment greatly increases both the amount of effects

and the level of operation of the other variable vis-a-vis those who are high on the educational horizons typology.

A noteworthy implication of the findings is concerned with the previously noted tendency of track to reinforce the effects of friends' plans on some students' college desires and expectations. When older students are college track and have college-bound friends 83 percent are high on horizons in contrast to 14 percent in the negative conjunction made by non-college track and friends with non-college plans. The united, combined, or cumulative effects are striking.

Also observed previously is the related phenomenon of opposition or cross-pressures of track and friends' plans in regard to educational horizons. College track students with friends planning on things other than college are much more likely to be high on horizons than students in other tracks whose friends have college plans (47 to 27%). These also indicate that track has a larger role than friends' plans in shaping the educational futures of senior highs.

Turning to the second page of Table 6.7 provides the necessary data for contrasting tracks within the junior high school. The correlation between friends' plans and college--desired/expected is positive and significant in each of the subtables. This relationship appears to be a little stronger in the college track (V=.32 to .28), but for those who desire and expect college, the effects of friends' plans are probably no greater in the college track than in the other courses of study (32 to 31PD). Nevertheless, the distributions in each track are quite dissimilar; all track differences are significant. Track effects are about equal to the effects of friends' plans.

As usual where track is concerned, there are conjunctive effects with the independent variable. Among the college track junior highs with friends planning on college, 79 percent are high on the dependent variable in contrast to 20 percent of those in the other tracks who lack college-bound friends. In the opposition between track and friends' plans the difference is non-significant (4PD). This serves to confirm the impression that peer influences and course of study have similar effects on younger students' horizons.

(2) As a Course of Study or Track Control. Within the college track, the senior high school students show a somewhat stronger association between the two main variables (V=.38 to .32). Of those high on horizons, the older ones appear to be slightly more responsive to friends' plans than their more youthful track-mates (36 to 32PD). However, the grade/age differences lack statistical significance.

In the other or non-college courses of study, the correlation of friends' plans and college--desired/expected is stronger in the junior high school group (V=.28 to .16), i.e., the younger students are much more effected by friends' plans (31 to 13PD). Grade/age differences are significant only if friends are planning on college, and then the younger students are more apt to be high on desires and expectations of college (24PD). Apparently these younger students are naively reflecting their friends' college plans--they do not realize the implications of their own plans to enroll in a non-college course of study. Seniors in a non-college track with college-bound friends seem to be more realistic in their appraisal of the probability of finishing college/

(3) Final Grade and Course of Study or Track Comparisons. In terms of the effects of friends' plans on college--desired/expected, the following order was found: college track seniors were most influenced (V=.38), college track juniors were next (V=.32), still less were non-college juniors (V=.28), and least of all were non-college seniors (V=.16). Track differences are more critical to the basic relationship than grade/age differences.

However, comparing those who are high on educational horizons, the following can be specified: All track differences are significant. Grade or age differences are not significant except among non-college course students with college-bound friends--and then, the younger students are more likely to be high (24PD). Inasmuch as over time, the younger students probably will become more like the present senior highs, it is reasonable to conclude that grade/age differences have little consequence on educational horizons, at least as far as peer influences are concerned. In any event, track is far more relevant to the subject.

Friends' plans and course of study or track were seen to have marked cumulative effects on educational horizons. Track effects alone are as large or larger than the important effects of friends' plans when controlled by track. Finally, it is clear that the hypothesized relation of peer influences and educational horizons is relevant to each of the four trcak and grade/age divisions of the population.

3. Summation of Demographic-Contextual Control Findings

a. Sex. (1) Although males are more likely to be high on educational horizons (39 to 33%), they are less effected by friends' plans than females (V=.28 to .42), but sex differences are significant only when friends have plans other than college (10PD). (2) When controlled by grade, among the older or senior high students the boys' horizons are much less effected by friends' plans (V=.26 to .50), but if high on horizons, sex differences are significant only when friends have plans other than college (16PD). In junior high school males are less effected (V=.29 to .34), but sex differences are not significant. (3) If the main relation is controlled by track, in the college course males' horizons are much less influenced by friends' plans (V=.29 to .50), however, sex differences between those high on horizons are not significant. In the non-college track the males' horizons seem to be less effected by the independent variable (V=.19 to .23), and sex is significant if friends' plans are non-college (7PD). (4) Consistently males show less effects by friends' plans, and generally they are more likely to be high on educational horizons than females. For high horizons students, sex differences tend to be quite small, occur when friends have non-college plans, and then males are more apt to be high. When the basic relation between friends' plans and college--desired/expected is controlled by track and grade, there is an increase in variation ascribable to sex.

b. Grade. (1) Although junior and senior high school students are equally likely to be high on educational horizons, the older students reveal a slightly stronger association between friends' plans and college--desired/expected (V=.38 to .32). (2) When controlled by sex, among the males the senior highs may be less effected by friends' plans (V=.26 to .29), however, between boys high on horizons, grade/age differences are not significant. The older girls show much greater effects of friends' plans on their educational futures than the junior girls (V=.50 to .34), but grade differences between girls who desire and expect college are significant only if friends have non-college plans, and then the younger girls are more apt to be high (10PD). (3) With track controls, college preparatory senior highs reveal a somewhat stronger association than do their more youthful track-mates (V=.38 to .32), but grade or age differences are not significant between those high on horizons. In the non-college track, the older students are much less influenced by friends' plans (V=.16 to .28), and if high on college desires and expectations, the grade/age difference is significant when friends plan to go to college (24PD). In that event, the younger students are more likely to be high. (4) It may be concluded that grade differences are not consistent on the independent-dependent relationship.

The first-order tendency of the older students to be more influenced in their educational horizons by the plans of friends is due primarily to females in senior high school. For those who both desire and expect college, grade/age differences are inconsequential except among females' friends with non-college plans and within the non-college course of study among students whose friends plan on college. In both cases the younger students are more likely to be high.

c. Course of Study or Track. (1) College course students are much more likely to be high on college--desired/expected (64 to 22%), and they are more effected by friends' plans than students in other tracks (V=.36 to .21). All track differences between students high on horizons are significant, and college course students always have a greater likelihood of being high. (2) When the basic relationship also is controlled by sex, both for males (V=.29 to .19) and females (V=.50 to .23) the correlation is greater in the college than in other courses of study. (3) Adding grade/age controls does not alter the basic pattern. College course students are more influenced in their horizons whether they are in senior (V=.38 to .16) or in junior high school (V=.32 to .28). (4) Without exception course of study or track and friends' plans have significant cumulative effects on educational horizons. When controlled by friends' plans, track effects are as large or larger than effects of friends' plans alone. College track students are more influenced by plans of friends; they always are more apt to be high on horizons.

Track differences are consistently significant and relevant to the relationship of friends' plans with horizons.

d. Final Evaluation of Demographic-Contextual Controls. The separate use of the sex, grade, and track or course controls habitually revealed significant and positive correlations between friends' plans and college--desired/expected. These observations were taken to suggest rather extensive or broad relevance for the research hypothesis in the lower class, black high school population being studied. However, it seemed important to combine the basic controls two at a time, to see if any demographic and/or contextual limitations should be specified for the hypothesis.

Completion of this analysis has disclosed no subdivision of the population within which the independent to dependent relationship fails to obtain as hypothesized and at the predetermined level of significance. Indeed, except among non-college track males (.01) and non-college track senior highs (.02), all subtable correlations were at the .001 level of significance. Therefore, it appears to be reasonable and appropriate to conclude that the relevance of friends' plans for college--desired/expected is extensive or broad for the population being investigated.

In view of the general or wide relevance, and since the effects of friends' plans on educational horizons have been in the predicted direction and statistically significant, there appears to be no empirical basis for doubting or questioning the usefulness or validity of the research hypothesis. However, prior to making any final judgments, it will be necessary to test the major relationship to see if it can be explained as spurious or interpreted as due to linkage via a third factor. In the third chapter it was demonstrated that certain student evaluations are correlated with educational horizons. Perhaps a set of evaluations is the source of the association between friends' plans and college--desired/expected.

## C. Effects of Personal Evaluations on the Relationship

The conceptual model predicted a relationship of peer influences to educational horizons which would be modified by students' personal evaluations of their society, race, school, and self. That model was operationalized, and the relevant working definitions are to be found in Appendix B. The specific research hypotheses derived from the model will be furnished below at the appropriate place in the text.

### 1. Effects of Societal Evaluations

Societal alienation, or attitudes toward society, is the name of the operational definition or indicators of students' societal evaluations. In an earlier chapter it was verified that: The less the students' societal alienation, the higher their educational horizons. Up to this moment, the empirical findings have supported the assertion that: The higher the peers' educational horizons, the higher the students' educational horizons. As a test variable, it is possible that attitudes toward society will explain away or interpret the relation as non-causal, but it is believed that alienation and friends' plans jointly contribute to the dependent effects. The particular hypothesis to be tested states: The higher the peers' educational horizons and the less the societal alienation, the higher the students' educational horizons. The relationship of friends' plans and college--desired/expected, controlled by societal attitudes, may be found in Table 6.8

Students who are low on societal alienation are a little more likely to have friends planning on college (35 to 28%), and they are much more likely to both desire and expect college than are the more alienated students (44 to 30%). In both subtables, the association between friends' plans and the educational horizons typology is statistically significant and in the predicted direction. The relation seems to be somewhat stronger in the low alienation group (V=.36 to .32). Accordingly, for those high on educational horizons, friends' plans may have slightly larger effects on the less alienated students (37 to 33PD). Furthermore, of those students with friends planning on college, the ones who are low on societal alienation are more likely to be high on the educational horizons typology (15PD). The same is true among those whose friends have non-college plans (10PD). Even though effects of friends' plans are greater, societal alienation effects also are important for college desires and expectations of high school youths.

One important implication of these findings is that students' attitudes toward society may reinforce or add to the effects of their friends' plans under certain circumstances. A positive conjunction occurs among low alienation students whose friends are college-bound. A negative union exists among high alienation students with friends planning on things other than college. In the positive combination 68 percent are desirous of and expect to finish college in contrast to 21 percent in the negative conjunction. The effects of both variables on educational horizons are cumulative and largely independent of each other.

A second implication is allied with the preceding one. For some students the negative effects of no friends planning on college is reduced by positive attitudes toward society. Conversely, other students have negative evaluations of society, thus decreasing the positive influences of college-oriented friends. In the cross-pressures or the opposition between friends' plans and societal alienation, the predominant role of friends becomes clear. When both factors are low, low alienation and friends with non-college plans, 31 percent are high on horizons, compared to 54 percent when high on alienation and friends planning on college.

The latter two paragraphs suggest not only that increasing the number of students planning on college will lead to further increases--the virtuous circle--but also that therapeutic steps to reduce societal alienation would have a synergistic effect on the process. As discussed in earlier chapters, negative attitudes toward society do have consequences which reach beyond the school and whether or not it sends respectably large proportions of its graduates on to college. Lowered educational horizons are likely to lead successively from low or reduced academic attainments, to limited occupational opportunities, and to a diminished probability of social mobility and economic self-sufficiency.

To summarize, it may be stated that the evidence in Table 6.8 is consistently favorable to the hypothesis; also neither negative evidence nor grounds for doubt were found. Therefore, it can be concluded that: The higher the peers' educational horizons and the less the societal alienation, the higher the students' educational horizons. Inasmuch as the main connection between friends' plans and college--desired/expected was maintained when tested by students' attitudes toward society, it also is concluded that an additional argument has been established in behalf of the hypothesis which predicted that interrelationship.

## 2. Effects of Racial Evaluations

The working or the operational definition of racial evaluation is called racial alienation or racial attitudes. As discussed elsewhere, this measure is concerned with the subjects' attitudes toward their own racial grouping. In the third chapter it was shown that: The less the students' racial alienation, the higher their educational horizons. In the present chapter evidence has been accumulated for the main hypothesis relating peer influences and educational horizons. Now the task is to discover racial evaluations explain away or otherwise condition or modify the relation. The expected outcome is: The higher the peers' educational horizons and the less the racial alienation, the higher the students' educational horizons. The distributions for the independent and dependent relation, controlled by racial attitudes, is presented in Table 6.9.

In each of the three subtables, the relationship of friends' plans and educational horizons is statistically significant and in the hypothesized direction. The correlation is highest within the low racial alienation grouping (V=.39), next in the medium alienation subgrouping (V=.32), and least in the high alienation subtable (V=.29). Differences between the low and high alienation subgroupings are significant. While the low is significantly different from medium, the medium groups' dissimilarities from those high on alienation can be accounted for by chance. Further discussion will exclude the moderately alienated subtable.

Students who are low on racial alienation are more likely to have friends planning on college (37 to 26%), and they are more likely to both desire and expect to obtain a college education than high alienation students (47 to 31%). Friends' plans are more effective in creating differences between students high on horizons when they are less alienated from their own race (40 to 29PD). Among the students whose friends' plans include college, low racial alienation accounts for a substantial increase in likelihood of being high on horizons (19PD). Similarly among those with friends planning on other things than college, although this difference is not so great (9PD). As the foregoing percentage differences indicate, the effects of friends' plans are much greater than those of racial attitudes. Despite some interaction effects, the contribution of both variables is important to the dependent results in horizons.

The cumulative effects of peer plans and college--desired/expected are clearest in their conjunctions. Among those students who have friends planning on college and who are low on alienation, 72 percent both desire and expect to acquire a higher education, compared to 24 percent of those in the negative conjunction. The reinforcement is marked, however, when these two variables are in opposition, their effects on horizons demonstrate that friends' plans are more likely to be determinative than racial alienation. The low alienation students lacking friends planning on college are less likely to be high on horizons than high alienation students with college-bound friends (32 to 53%).

The findings can be summarized: Both friends' plans and racial attitudes have important, cumulative influences on college--desired/expected. The evidence is unambiguous and positive. It is concluded that: The higher the peers' educational horizons and the less the racial alienation, the higher the students' educational horizons. The present evidence also strengthens confidence in the plausibility of the principle hypothesis interrelating peer influences and educational horizons. The significance of that relationship was supported when tested by students' racial attitudes.

At appropriate places in previous chapters, some of the implications of racial alienation have been discussed. From the above findings it is obvious that acceptance by peers does not obliterate the impact of negative attitudes toward the students' own racial minority. Not merely is the vicious path of low educational horizons, limited academic training, minimal job opportunities, and continued lower class status made more probable by racial alienation, but the current social struggle for the rights of Negroes may confirm the alienation of many blacks. Of course radical changes toward openness and redress of injustices by the larger society would be excellent therapy for the racially alienated, but such hopes appear to be utopian. As pointed out elsewhere, a more realistic approach to the immediate problem would be for the school to conduct a two-pronged drive as part of its regular program. One would be aimed to increase the number of students desiring college. The other would seek to minimize negative racial evaluations by informing students of the substantial achievements and contributions made to society by members of their minority group.

### 3. Effects of School Evaluations

Attitudes toward school is the label of the measure or working definition of school evaluations. In the third chapter it was established that: The more positive the students' attitudes toward school, the higher their educational horizons. Thus far substantial evidence has been uncovered in behalf of the main research hypothesis: The higher the peers' educational horizons, the higher the students' educational horizons. The present problem is to determine if school evaluations explain away, interpret as non-causal, or otherwise modify or alter this fundamental relationship. The hypothesis now to be examined specifies: The higher the peers' educational horizons and the more positive the attitudes toward school, the higher the students' educational horizons. Table 6.10 contains the empirical evidence necessary for the test of this hypothesis and of the basic relation between friends' plans and college--desired/expected, when controlled by students' school attitudes.

In each of the three subtables, the relationship of friends' plans and the horizons typology is statistically significant and in the direction expected. The association is greatest within the neutral evaluations group (V=.39), and much less in the negative and positive groupings (V=.29 and .28). Students both desirous of and expecting college reveal minor differences in order. Those with moderate or neutral attitudes toward school are the most responsive to variations in friends' plans (40PD), the positive attitude students are next but only slightly more effected than the negative students are (29 to 26PD).

The miniscule differences in these otherwise quite dissimilar groups probably reflect the marginal variations. Students with positive attitudes are more likely to have college-bound friends (37 to 22%), and they are much more likely to be high on the dependent variable (49 to 20%). It seems plausible to assume that they are similar to each other in responsiveness and unlike the neutral group because their attitudes tend to make up their minds about higher education. Students in the neutral group have not found school to be decisively good or bad, as a consequence they are more open or susceptible to their friends' feelings and plans. The relevance of peer reference groups and significant peers (friends) as both behavioral and attitudinal models, may be the most reasonable explanatory context for these findings.

Contrasting proportions of students who are high on educational horizons discloses that the differences attributable to school evaluation are substantial. Among those whose friends plan to go to college, students with positive attitudes toward school are much more likely to desire and expect college (27PD). The difference is almost as dramatic among those whose friends have non-college plans (25PD). It is clear, school evaluation has marked effects on educational horizons.

Positive school attitudes and friends planning on college create a positive conjunction where in 67 percent both are desirous of and expect to obtain a college education. At the opposite end of this cumulative range is the negative conjunction on educational horizons. In that event, only 14 percent entertain hopes and plans for college.

The opposition of friends' plans and attitudes to school demonstrates the nearly equal significance of both factors for students' educational horizons. When school attitudes are positive but friends lack college plans, 38 percent are high on horizons in comparison with 40 percent who are negative about school but whose friends plan to go to college. It should be noted that friends plans alone are more important than evaluation differences alone when the neutral group is compared with the other two. It is clear that both variables are important for the college desires and expectations of the students in the population.

Inasmuch as the effects of friends' plans and school attitudes are positive, cumulative, and significant, it is concluded: The higher the peers' educational horizons and the more positive the attitudes toward school, the higher the students' educational horizons. No problems were encountered in reaching that decision; the evidence is impressive. Furthermore, since the testing by school attitudes did not explain away or interpret the research relationship as noncausal, the present analysis is an argument adding credence in the hypothesis that: The higher the peers' educational horizons, the higher the students' educational horizons.

## 4. Effects of Self Evaluations

Self-image is the label given to empirical indicators or self evaluations. It already has been demonstrated that: The more positive the students' self-image, the higher their educational horizons. The task at hand is to evaluate the associations between peer influences and self evaluations vis-a-vis educational horizons. Is the main hypothesis to be explained as spurious or interpreted as due to the self-image factor? The conceptual model predicted a relation which is expressed: The higher the peers' educational horizons and the more positive the self-image, the higher the students' educational horizons. The relationship between friends' plans and college--desired/expected, controlled on self-image, is given in Table 6.11.

In each of the self-image subtables, the association of friends' plans and the educational horizons typology is positive and statistically significant. The relationship may be strongest within the positive self-image subgrouping (V=.35), but it is about the same in the neutral or medium self-image subtable (V=.34), and weakest among those who have a negative self-image (V=.22). For students that are high on educational horizons, the neutral (36PD) and positive groups (35PD) are similar and the negative group is least effected by variations in friends' plans (22PD).

The cumulative effects of friends' plans and self-image are most readily observed in their conjunctions on educational horizons. When the conjunction is positive 66 percent desire and expect college compared to 22 percent of those who are negative in self-image and lack friends planning on college. Examination of students with college-bound friends discloses that those with a positive self-image are much more likely to be high on the educational horizons typology (22PD). However, cumulative effects lack significance among those whose friends have non-college plans (8PD).

Although both factors are relevant, friends' plans accounts for more of the dependent results than self-image does. This is apparent in the opposition of the two determinants. If friends do not plan on college but self-image is positive, 30 percent are high on horizons in contrast to 44 percent when self-image is negative but friends plan to attend college. These figures reflect interaction in which either friends' plans for college or positive self-image acts to positively condition the influence of the other on the educational horizons typology.

The findings taken from Table 6.11 suggest that students with a positive self-image are more open to the attitudes and plans of their peers. Apparently, students with a negative self-image are less willing, or feel unable, to run the risks of competing in college. Consequently, they not only are less likely to be high on college desires and expectations (28 to 45%), but they also tend to protect themselves by choosing friends who lack college plans (76 to 58%). As commented on in earlier chapters, self-image of its students could be an important area of concern for the school. Conceptually and empirically self-image is closely interrelated with most of the variables within the present study. Improvement in self-image may be expected to lead to improvements elsewhere. Likewise, therapeautic attention to factors like racial alienation and negative attitudes toward society may be accompanied by favorable shifts in self-image.

The findings may be summarized: Even though the effects of friends' plans are greater, both friends' plans and self-image are important to educational horizons. The effects of both factors cumulate in the manner hypothesized, however, substantial variations in college--desired/expected by self-image are contingent upon the presence of friends planning on college. With that one specification in mind, it is concluded that: The higher the peers' educational horizons and the more positive the self-image, the higher the students' educational horizons. Inasmuch as the association between friends' plans and college--desired/expected was sustained when tested by self-image, it also is concluded that an additional argument has been added in behalf of the hypothesis which predicted that interrelationship.

5. Summation of Effects of Personal Evaluations

Each of the four sets of personal evaluations was used to test the relationship of friends' plans and student desires and expectations of college. There was no case in which this fundamental relationship was explained away or interpreted as being a non-causal correlation produced by mutual linkage to the test variable. Without exception, the direction of correlation is positive, or was hypothesized. Although the level of significance between friends' plans and college--desired/expected is .01 in the negative self-image subtable, in all other cases chance could account for the results less than once in a thousand repetitions. The evidence in favor of the hypothesis is impressive. Neither negative evidence nor reasons for doubt remain. Therefore, it is concluded: The higher the peers' educational horizons, the higher the students' educational horizons.

Each of the four hypotheses, separately relating attitudes toward society, race, school, and self to peers' plans and their combined effects on educational horizons, were supported since these effects did accumulate in the manner and direction hypothesized. The predetermined level of statistical significance was satisfied in all instances but one. In that exception, it was specified that substantial influences by self-image on educational horizons are contingent upon friends' planning on college. It has been demonstrated students' personal evaluations do intervene to cumulatively modify the effects of peer influences on their educational aspirations and anticipations. Without repeating the separate hypotheses relating each set of attitudes and peers' plans to college--desired/expected, it is concluded that the model was useful in stipulating the relevance of these factors to students' educational horizons.

## Summation of Peer Influences and Educational Horizons

The fundamental conclusion of the preceding analysis is that the relationship of friends' plans to educational horizons is positive and significant.

The examination of this relationship within each of the major demographic and contextual subgroups confirmed its extensive relevance for the lower class, black high school population. The educational horizons of females, senior high school students, and students in the college preparatory track were somewhat more effected by friends' plans than were their school-mates'. Sex differences are small and dependent upon friends with non-college plans, and in that case males are more apt to be high on horizons. Grade differences are inconsequential, but college track students are always more likely to desire and expect college.

Use of paired demographic-contextual controls failed to uncover any subgrouping within which the independent and dependent variables were not positively and significantly correlated. Except for non-college track males (.01) and non-college track seniors (.02), the basic relation subtable results could have occurred by chance less than once in a thousand trials. Thus no limitation was placed on the relevance of the main hypothesis for the population studied.

Finally, the relationship between friends' plans and college--desired/expected was examined in connection with students' personal evaluations or attitudes toward society, their race, school, and self. Credibility in the hypothesized relation was greatly enhanced by results of these tests. It was demonstrated that the effects of peers' plans are cumulative with each set of personal evaluations' effects, i.e., they combine to produce systemically larger differences in educational horizons than either did alone. The hypothesized direction obtained in all subtables, and except for the negative self-image grouping (.01), the level of significance was .001 in every instance.

As a final summation of the analysis, it can be concluded that the conceptual model was useful and correct in predicting the relationship between peer influences and educational horizons, and in stating for that relation the relevance of personal evaluations of society, race, school, and self. Inasmuch as each of the hypotheses derived from the model have been supported by the empirical findings, it is concluded that the fit between the data and the conceptual model is good.

# VII. SUMMARY AND CONCLUSIONS

The primary interest of the present study has been to describe and explain the educational horizons of lower class black high school students. In view of their marginal class and minority status, the focal question has been: Why do some of these youths desire and expect a college education? Many steps have been involved in attempting to establish an adequate answer to that question.

On the assumption that a general theory of behavior was as relevant to students on the periphery of society as to members of the dominant majority, an abstract theoretical framework was outlined. Then the theory was elaborated into a conceptual model to deal with factors pertinent to the subject of educational horizons. Finally the model was defined operationally so these factors could be measured, hypotheses relating these measures were specified, and data was gathered from 823 Negro students to test an answer proposed by theory (see Chapter II for details, especially Figures I and II).

The last four chapters (III-VI) have included a presentation, analysis, and interpretation of empirical findings relating educational horizons to one, two, or three variables at a time. In each of those chapters it was noted that the model had predicted the observed relationships and provided theoretically plausible explanations of them. The empirical evidence for these discrete sets of hypothesized relations has been unambiguous and substantial. Thus, at the end of each chapter, it was concluded that the fit was good between the data and the part of the model examined. The utility of the model was demonstrated, albeit solely piece-by-piece.

Before final conclusions can be drawn, however, it is necessary to review the theory undergirding the conceptual model, the major findings, and the degree of correspondance or fit between them--as wholes. This is to be an integrative overview. Previous emphasis was on the bits and pieces of detailed analysis. The stress now is general synthesis--a pulling together of the crucial parts to establish the answer to the question underlying this investigation.

## A. Theory and Model

The general theoretical framework may be summarized: Dependent social effects or behavioral responses are a function of (1) stimulus and/or constraint by independent events or factors external to the subjects per se but which define their immediate situations, and (2) dispositional or personal characteristics of the subjects which intervene to alter or modify the linkage between stimulus and response. Although it is convenient to contrast disposition and stimulus, disposition is not necessarily an inert set of traits, but it may further stimulate or constrain social behavior.

The Immediate Situation. Three fundamental sources of stimulation and constraint define or determine a subject's immediate situation: (1) social structural conditions and his placement within this context, (2) cultural conditions, opportunities, advantages, and (3) interpersonal relations or interaction with persons of significance to him. That is, social, cultural, and social psychological factors constitute the primary external causes, independent variables, or determinants of social behavior set forth in the general theory.

To describe a subject's response to stimulus or constraint by some part of his situation is important, however, this description alone does not explain why the response was made. The problem is to explain why or specify how a given situational input leads to a particular behavioral output. This problem is seen most clearly when a response appears to be inappropriate to the stimulus. The general theory asserts that the linkage between stimulus and response is conditioned by the subject's disposition or personal attributes. Answering the question of why or how is dependent upon examination of the relevant characteristics of the subject.

Dispositional or Personal Characteristics. Although primarily the product of past experiences in his immediate situation, the subject's evaluative predispositions are personal, i.e., they have been internalized and serve to orient him to his present and potential situations. When evaluative predispositions are focused on aspects or levels of reality relative to probable consequences of a course of action, the results are personal evaluations. As such, they may further stimulate or further constrain the subject. Or they may act to constrain his response to the original stimulus. A fourth possibility is that personal evaluations will stimulate the response which was constrained by the immediate situation. So also, other personal and contextual characteristics like age, sex, and placement within the relevant system form the basis of role requirements and prescriptions which may lead subjects to differentiate their responses to the situation.

For a graphic presentation of how dependent effects or behavioral responses are a joint product or function of both the immediate situation and the subjects' dispositional or personal characteristics, see Figure III on the next page. This figure may be regarded as a summary model of the general theory undergirding this study. The numbered paragraphs provide not only clarification and discussion of the model, but they contain conditions which must be met for there to be a good fit between theory and data.

In Chapter II a great deal of attention was paid to deriving a conceptual model from the general theory and that process will not be repeated here. While the abstract theory is generally or broadly relevant to social behavior, in the conceptual model it was necessary to specify details which were appropriate to educational horizons and the population selected for study. Inasmuch as the concepts employed were intimately associated with the theory or direct applications of it, and since each theoretical area was either controlled prior to study or incorporated into the model, the correspondance of the conceptual model to the theory is good. It was concluded that the model faithfully expresses the theory.

FIGURE III. POSITIVE BEHAVIORAL RESPONSE AS A FUNCTION OF THE IMMEDIATE SITUATION AND DISPOSITIONAL OR PERSONAL CHARACTERISTICS*

| | | Dispositional or Personal Characteristics: | |
|---|---|---|---|
| | | Stimulus | Constraint |
| The Immediate Situation: | Stimulus | A | B |
| | Constraint | C | D |

1) Type A subjects are stimulated by both immediate situation and dispositional characteristics. More make positive response than in any other type. "Pure stimulus."

2) Type D subjects are constrained by both immediate situation and dispositional characteristics. Less make positive response than in other types. "Pure constraint."

3) Type B subjects are cross-influenced by situational stimulus and dispositional constraint. More positive responses than in Type D, less than in Type A. "Cross-influenced."

4) Type C subjects are cross-influenced by situational constraint and dispositional stimulus. Similar to Type B.

5) Percentage difference between those making the response in A and in D is a measure of cumulative or conjunctive effects of situational and dispositional stimulation and constraint. Largest of the six possible differences.

6) Percentage difference between those making the response in B and in C is a measure of opposition or the relative strength of situational and dispositional factors.

7) Percentage differences between A and C and between B and D are measures of response attributable to situational factors, controlled by dispositional characteristics.

8) Percentage differences between A and B and between C and D are measures of response attributable to dispositional characteristics, controlled by situational factors.

* Negative response would be identical except for reversal of frequency of responses in A and D types.

## B. The Fit of Data and Model

Prior to examination of the fit between the data and the conceptual model per se, it is proper to review each of the concepts in regard to: (1) What conditions were theoretically specified as stimulating or as constraining in their relation to educational horizons, and (2) Whether or not the empirical findings confirmed these expectations or specifications of stimulus and constraint. In this survey it may be helpful to refer in Chapter II to Figures I and II containing the model and to the research hypotheses which specify the conditions that stimulate educational horizons. References to the empirical findings will be made below as appropriate.

The Immediate Situation. The general theory asserted the importance of social structural, cultural, and interpersonal conditions as independent or determining factors relative to social behavior. The first of these three items was controlled prior to study by selection of subjects who were members of the same class, race, neighborhood, and school. Without commenting on the quality of the school, it is plain that lower socioeconomic class Negroes who live in a ghetto are less stimulated--more constrained--in seeking a college education than upper middle class whites living in suburbia. Because social structural conditions were controlled before the study was made, they cannot be sources of variation in educational horizons between subjects. However, since the population's social structural conditions have been defined by the society as liabilities, some students who otherwise would have desired and expected a college education may have been sufficiently constrained from doing so. How frequently this occurred is beyond the concern of the present study, but student evaluations of society and race--to be discussed at a later point--are related to social structural conditions.

Cultural conditions were represented in the conceptual model as cultural deprivation stressing the importance of cultural disadvantage, lack of skills, and the absence of opportunities for cultural stimulation. Cultural deprivation is a constraint on educational horizons because the students who are so described are deficient in tools or means which are vital in the educational process as well as in society. Because all subjects were enrolled in the same high school, the operational measure of cultural deprivation was focused on their home. Objective cultural advantages present a full range from little or no cultural stimulation in the home to a number of such sources of stimulation. Thus "Low OCA" is a constraint, reflecting the content of cultural deprivation while "High OCA" is a stimulus and counterpart or opposite of cultural deprivation. The findings examined and reported in the initial section of Chapter IV confirm "High OCA" and "Low OCA" as stimulus and constraint, respectively, on the subjects' educational horizons.

Interpersonal conditions in the conceptual model are depicted by parental pressures and peer influences. When a student's parents both push him toward some high educational achievement such as graduation from a college or university, there is little question that some stimulation is involved. Similarly, when neither parent desires this behavior or if they push the subject toward trade school or to be satisfied with high school graduation, there is constraint as far as a college education is concerned. In either case parents are significant others who can reward conformity to their wishes and punish deviation. The measure of parental pressures is parents pro-college. When "Both" favor college the student is stimulated. If "None" want their child to have a higher education, the student is constrained from desiring and from expecting college. The first few pages of Chapter V reveal that designation of "Both" parents pro-college as a stimulus and "None" pro-college as a constraint on educational horizons is appropriate to the facts of the study.

Like parental pressures, peer influences are treated as an independent variable or determinant of students' educational desires and expectations. Students may choose friends with similar educational horizons, in that case peers' plans for the future will tend to reinforce existing plans. Other subjects will be exposed to peers whose horizons differ from their own. In both cases peers are likely to be significant others--friends--whose horizons and post high school plans will tend to pull the subject in the peers' direction since he wants to continue their company and approval and to avoid criticism or other negative sanctions for deviant educational horizons. The operational definition of peer influences is friends plans. When friends plans are "College" following high school, then the subject is in the stimulus condition on educational horizons. Conversely if friends have "Other" plans like business school or work, the subject is under a constraint as far as college is concerned. The data presented in the initial part of Chapter VI confirm these specifications of stimulus and constraint as fitting and suitable. Students with college-bound friends are much more likely to desire and expect college than students whose friends have other plans for life after high school graduation.

Dispositional or Personal Characteristics. This set of variable facilitates theoretical explanation of dependent responses to the independent factors just discussed. These intervening variables include the subjects' demographic and contextual traits and their evaluations of levels of reality relevant to educational horizons. Empirical data in support of these designations of stimulus and constraint conditions are given in Chapter III's second and third sections. The data provided full confirmation of these specifications for each of the personal evaluations, however, some exceptions which occurred on personal traits will be noted below.

Based on the conceptual model it was hypothesized that students' attitudes or evaluations of their society, race, school, and self would intervene to modify and alter the connection between each independent variable and educational horizons. Unfavorable or negative attitudes toward any or all of the levels of reality would be a constraint on student desires and expectations of attaining a college degree. Positive or favorable attitudes are a stimulus.

Societal evaluations were operationally defined as societal alienation. Alienated subjects view society with distrust and lack of confidence or believe that personally rewarding, successful competition is not available to them due to some societal condition. They are not likely to see college as a goal of intrinsic merit, nor are they likely to think that it is worth the cost just to procure an ineffective means to ends they may not even desire. "High" alienation is a constraint on educational horizons. "Low" alienation is a stimulus because subjects who see society as stable and reliable, potentially rewarding, are free to see college as a useful investment in their own futures.

Racial alienation is the working definition of racial evaluations. The content is similar to societal alienation, but the object is different. Subjects who are alienated from their race, perceive that object as the source or the basis of handicap which makes efforts like higher education either impossible or of little utility. "High" racial alienation constrains educational horizons; "Low" is a stimulus. For a student in the latter category, race is not primarily a problem. It is seen as a personally and socially worthy asset.

School evaluations are measured by attitudes toward school. If students have rewarding experiences, feel that the school is doing a good job, and believe it is relevant to their life situations and problems, then their attitudes are "Positive" and constitute stimulus. The converse are "Negative" attitudes which constrain educational horizons since school is viewed as irrelevant, unpleasant, not worthy of the time and effort required even for high school level.

Self-image is the operational definition used as the indicator of self evaluations. If the subject perceives of himself as worthy of confidence and trust and as having important abilities and assests then his self-image is "Positive" and may be expected to facilitate college desires and expectations. The opposite of the stimulus condition is a self-image dominated by feelings of inability, lack of esteem, or marked personal limitations. "Negative" self-image tends to preclude at least the expectation of attaining college; it is a constraint on educational horizons.

In discussing the conceptual model it was suggested that the demographic-contextual characteristics defining the major subgroups of the population could differentiate educational horizons of the subjects. Specific hypotheses were not formed designating either stimulus or constraint because the direction of their effect within a poor, black population was not theoretically predictable in each case. These four factors suggested as potentially significant are: sex, age, grade, and track or course of study. Both the caution and the decision to employ these factors were justified by the data presented in the second section of Chapter III.

The subjects' sex could be a source of stimulus and constraint on educational horizons since differing sex roles presume different preparation to meet varying role requirements. Males thus would be somewhat more stimulated to seek a college education since they must function as the principle wage earner for the family they establish. Females would be somewhat constrained inasmuch as most of them will function as wives and mothers later on, and a college education does not greatly facilitate performance of these roles. The data support designation of male as a stimulus condition and female as a condition of constraint, however, the difference on educational horizons is quite small (6PD), hardly significant theoretically or statistically (p=.05 by Chi-square).

The concepts of age and grade were closely associated theoretically and empirically, so grade was chosen to stand for both traits. Neither "Junior High" nor "Senior High" is more likely to be high on educational horizons. To designate one as stimulus and the other as constraint did not make any sense empirically under these conditions.

The final dimension defining subgroups of the population is academic track or course of study. The empirical findings strongly confirm specification of "College" track as stimulus and "Other" tracks as constraint on the students' educational desires and expectations. Subjects in a college preparatory track are not only acquiring the skills that are necessary for higher education, their enrollment in the track presupposes some interest in going to college. Conversely, placement in some non-college track assumes different interests and preparations that are not so likely to be helpful if the student should decide to go to college anyway.

Because the conceptual model had suggested that sex and age or grade could be expected to be important to educational horizons, it was decided to combine them with track to create typologies to population subgroups. The resulting types show far larger differences than any of the variables used separately. For example, sex and track are the basis of the following types: college track female, college track male, other track male, other track female. These types are ordered from the most to the least likely to desire and to expect college. Although subjects in the college track are not greatly different from each other, differences between the other two are substantial and between the others and the college tracks are marked. "College-Female" is the stimulus type, and "Other-Female" is the constraint type. Apparently the earlier rationals about sex and track are valid, but the girls who prefer a professional career as their primary role realize that college is a prerequisite. College track boys may select vacations where college is desirable--if they can manage it--but college is not always a prerequisite.

The situation with grade/age and track is parallel. The four types ordered from greatest to least likelihood of high educational horizons are: college track senior high, college track junior high, other track junior high, other track senior high. All differences are substantial. Thus, the stimulus type is "College-Senior High" and "Other-Senior High" is the constraint type. The ordering on track was not surprising, but why the striking contrast among the older or senior high school students? Apparently the longer they are in school creates a cumulative effect on track differences, i.e., not only does it become progressively harder to change from one track to another without academic penalties, but it is reasonable to assume they are more and more socialized to accept the vocational consequences of track enrollment.

Thus far in judging the fit between the theoretically derived conceptual model and the empirical findings, it has been demonstrated that each variable contains both a stimulus and a constraint condition, as was predicted or hypothesized. Although these conditions were not specified in advance for grade/age, the possibility of such specification is implied by inclusion in the model. It should be clear that this concept is a major exception to the model unless it is combined with another demographic-contextual variable. Then grade is clearly useful. Sex may be regarded as a minor exception since the difference found was quite small, however, combined with track, it is an important adjunct to the analysis. The exceptions do not appear to seriously limit or call for the revision of the model because grade/age and sex make good contributions through demographic-contextual typologies.

No further summation of the stimulus and constraint conditions will be made for each variable since they are not only covered in the preceding pages but are also indicated in the tables which follow, see especially Table 7.1 and 7.4. The tables are arranged so that the row headings contain all independent variables defining subjects' immediate situation and specification of each variable's stimulus and constraint conditions. The column headings include either evaluative dispositions or personal characteristics and the designation of stimulus and constraint modes for each factor.

The relation of all concepts to educational horizons has been established, and their stimulating and constraining conditions have been specified and confirmed. Now the major task is to demonstrate that dispositional and personal traits do intervene to modify and to facilitate explanation of the linkage between independent factors in the immediate situation and the dependent behavioral responses of the subjects. Inasmuch as detailed interpretations and implications have been made previously, and since the present issue is whether or not the data provide confirmation of the model as a whole, the discussion that follows will be limited to clarification and observations or conclusions important to the issue.

As pointed out earlier in Figure III there are four logically possible patterns of stimulus and constraint when a pair of variables are related to each other vis-a-vis some positive behavioral response such as desires and expectations for college: Type A--both variables act as stimulus and the maximal number of subjects are high on educational horizons, Type D--both variables act as constraint and the minimal number of subjects desire and expect college, Types B and C--first one variable is stimulus and the other is constraint, in the other case stimulus and constraint are reversed; these cross-influenced subjects have an intermediate likelihood of desiring and expecting college. Each type corresponds to a cell entry in some of the tables that follow. These entries are percentages of students who desire and expect college in each stimulus-constraint type. Percentage difference comparisons between these four types are entered in the following tables; use of "PD" will facilitate answering questions.

For the correspondance or fit between data and model to be considered good, affirmative answers must be obtained to two questions. The first question is, "Does each pair of variables, one from the immediate situation and one from the dispositional or personal characteristics, have a substantial joint or cumulative effect on the number of subjects who are high on educational horizons?" In other words, is the percentage difference between Type A and D substantial (Tables 7.1 and 7.4 deal with this and will be examined shortly), and do the percentage in Types B and C fall in this range (Tables 7.2 and 7.5 will be helpful here)?

The second necessary question is, "Does each dispositional or personal characteristic intervene to substantially modify or alter the impact of the immediate situation on the number of students who are high on educational horizons or not?" That is, are the percentage differences between Types A and B and between C and D Types important? Tables 7.3 and 7.6 will be used to settle this issue.

Tables 7.2 and 7.5 are essential only to establish the fact that the percentages are within the ranges and to permit computations for Tables 7.3 and 7.6, however, they make it possible to raise another interesting question of some importance, namely, "Which one of each pair of factors contributes the most influence in determining college desires and expectations?" This is a percentage difference between Types B and C. The two factors are of equal importance when the percentage difference approaches zero. If the sign is negative, then the dispositional or personal characteristics factor is the more influential of the two, otherwise factors in the immediate situation are more important.

Now we may turn to the actual and final analysis of the tables to decide whether or not the fit of the model to the data is good. First the role of personal or demographic and contextual characteristics will be examined in Tables 7.1 through 7.3. Then the role of dispositional or evaluative characteristics will be considered in Tables 7.4 through 7.6.

Table 7.1, given on the next page, makes comparisons between students who are either stimulated or constrained by both demographic-contextual characteristics and factors in their immediate situation. To take the example showing the least difference between "pure stimulus" or Type A and the "pure constraint" or Type D, examine the subtable relating objective cultural advantages and track. When stimulated by high OCA and college track membership, 70 percent desire and expect college compared to 15 percent with similar horizons who are constrained by low OCA and enrollment in some other track or course of study. The percentage difference between

## TABLE 7.1

### PERCENTAGES OF STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF EITHER STIMULI OR CONSTRAINTS OF CULTURAL OR INTERPERSONAL CONDITIONS AND OF DEMOGRAPHIC-CONTEXTUAL CHARACTERISTICS; AND THE PERCENTAGE DIFFERENCE BETWEEN EACH STIMULI AND CONSTRAINTS PAIR

| | Track (Course of Study) | | Sex and Track | | Grade and Track | |
|---|---|---|---|---|---|---|
| | "College" Stimulus | "Other" Constraint | "College-Female" Stimulus | "Other-Female" Constraint | "College-Senior High" Stimulus | "Other-Senior High" Constraint |
| **Objective Cultural Advantages:** | | | | | | |
| High OCA--Stimulus | 70% | | 74% | | 78% | |
| | (55PD) | | (61PD) | | (68PD) | |
| Low OCA---Constraint | | 15% | | 13% | | 10% |
| **Parents Pro-College:** | | | | | | |
| Both------Stimulus | 80% | | 87% | | 87% | |
| | (71PD) | | (76PD) | | (79PD) | |
| None------Constraint | | 10% | | 11% | | 8% |
| **Friends Plans:** | | | | | | |
| College---Stimulus | 82% | | 86% | | 83% | |
| | (65PD) | | (73PD) | | (69PD) | |
| Other-----Constraint | | 17% | | 13% | | 14% |

## TABLE 7.2

PERCENTAGES OF STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF STIMULUS AND CONSTRAINT BY CULTURAL OR INTERPERSONAL CONDITIONS AND OF DEMOGRAPHIC-CONTEXTUAL CHARACTERISTICS; AND THE PERCENTAGE DIFFERENCE BETWEEN EACH CROSS-INFLUENCED PAIR

| | Track (Course of Study) | | | Sex and Track | | | Grade and Track | | |
|---|---|---|---|---|---|---|---|---|---|
| | "College" Stimulus | | "Other" Constraint | "College-Female" Stimulus | | "Other-Female" Constraint | "College-Senior High" Stimulus | | "Other-Senior High" Constraint |
| **Objective Cultural Advantages:** | | | | | | | | | |
| High OCA--Stimulus<br>Low OCA---Constraint | 53% | (-24PD) | 29% | 50% | (-28PD) | 22% | 49% | (-23PD) | 26% |
| **Parents Pro-College:** | | | | | | | | | |
| Both------Stimulus<br>None------Constraint | 30% | (10PD) | 40% | 27% | (9PD) | 36% | 32% | (5PD) | 37% |
| **Friends Plans:** | | | | | | | | | |
| College---Stimulus<br>Other-----Constraint | 47% | (-10PD) | 37% | 40% | (-5PD) | 35% | 47% | (-20PD) | 27% |

## TABLE 7.3

## PERCENTAGE DIFFERENCES BETWEEN STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF STIMULUS OR CONSTRAINT BY DEMOGRAPHIC-CONTEXTUAL CHARACTERISTICS UNDER SPECIFIED CULTURAL OR INTERPERSONAL CONDITIONS

| | Track (Course of Study) | Sex and Track | Grade and Track |
|---|---|---|---|
| | "College" Stimulus-- Minus--"Other" Constraint | "College-Female" Stimulus-- Minus--"Other-Female" Constraint | "College-Senior High" Stimulus-- Minus--"Other-Senior High" Constraint |
| **Objective Cultural Advantages:** | | | |
| High OCA--Stimulus | 41PD | 52PD | 52PD |
| Low OCA---Constraint | 38PD | 37PD | 39PD |
| **Parents Pro-College:** | | | |
| Both------Stimulus | 41PD | 52PD | 50PD |
| None------Constraint | 20PD | 16PD | 24PD |
| **Friends Plans:** | | | |
| College---Stimulus | 44PD | 52PD | 56PD |
| Other-----Constraint | 30PD | 26PD | 33PD |

these two cells is 55PD, showing a substantial cumulative or joint effect of the two variables on the number of students who both desire and expect college. Inspection of the other percentage differences reveals that all other pairs are even more important for the likelihood of high educational horizons. There is no question that demographic-contextual and cultural or interpersonal conditions have a very pronounced joint or cumulative effect. The theory also specified that the percentage in the Type A cell would be larger than in the Type D cell; this is true in each instance. To finally answer the question of cumulative effects, each Type A cell and Type D cell establish a subtable range that the theory specified must contain the percentages in Type B and C cells. To make this comparison, Table 7.2 must be used. Taking the example of objective cultural advantages and track again, in Table 7.1 the cells indicate that the range is 15-70 percent and Table 7.2 values are 29 and 53 percent, both well within the designated range. This is true in every case. Thus it is concluded that the effects are joint and cumulative; the fit between data and model appears to be quite good.

Before leaving Table 7.1, a comparison of percentage differences down the columns discloses that parental desires for their child's educational future are more important than either objective cultural advantages or friends' plans for influencing college plans. A rapid inspection of Table 7.4 confirms this judgment. This finding suggests that the lower class, adolescent Negro--unlike white counterparts of several social classes--can hardly be described as dominated by peers. The overlappage in percentages is so great that a plausible interpretation would be that many of the subjects choose friends with educational horizons which parallel and reinforce their parents' desires for their education.

The percentage differences given in Table 7.2 provide a foundation for drawing further conclusions about the importance of the variables vis-a-vis higher education, however, the comparisons here primarily are limited to contrasts of pairs of variables. The minus signs indicate that generally the demographic-contextual factors are more important than the variables that define the subjects' immediate situation. However, parental pressures are somewhat more consequential for college desires and expectations than track, i.e., students are more likely to have high horizons in response to parents' wishes despite non-college track enrollment than when they are in the college track but face parental opposition or lack of support for college. Nonetheless this does not reduce the importance of the fact that college track placement systematically more than off-sets the constraining and negative effects of low OCA and friends who do not plan to attend college following high school graduation.

The evidence already considered argues that personal characteristics intervene to modify and alter the impact of independent or situational variables on the likelihood that students will desire and expect college. To fully confirm an affirmative answer to the second necessary question it is useful to turn to Table 7.3 where the measures of the degree of intervention are given. An example may be helpful. The subtable of objective cultural advantage and track will be used once more. Table 7.3. is the result of two percentage differences based on Tables 7.1 and 7.2. Type A cell percent less Type B cell percent (70 - 29, both above the diagonals) yields the first percentage difference (41PD, above the line). This difference indicates that among students who are high on objective cultural advantages, a very substantial difference in likelihood of desiring and expecting college can be attributed to track. Continuing with this example, Type C cell minus Type D cell (53 - 15, both below the diagonals) yields the second percentage difference (38PD, below the line), and it also is quite large. In other words, under either stimulus or constraint by objective cultural advantages, track is a factor that does intervene in a vitally important way.

Examination of the other percentage differences in Table 7.3 clearly demonstrates that all of the factors that represent personal characteristics make some significant and systematic contribution to the final results. The smallest difference is 16PD (sex and track by no parents pro-college), which is still a noteworthy amount or degree of "alter and modify." It is concluded that the second necessary question should be answered in the affirmative, demographic-contextual characteristics do substantially vary the impact of independent or situational variables on subjects' likelihood of both desiring and expecting to obtain a college education.

A final summation and judgment regarding the likelihood of desiring and expecting college as a function of the immediate situation and of personal characteristics is that a good fit was found between the data and the model. Without exception, the data confirmed both the general conditions and the detailed specifications underlying the conceptual model. All differences were substantial statistically and theoretically. The model had been confirmed variable by variable; now it is confirmed as a whole for all independent and for the demographic-contextual variables.

Examination of the evidence relating dispositional or evaluative factors to the connection between the independent variables of the immediate situation and the probability of desiring and expecting college will involve the same procedures as used above. The empirical findings are presented in Tables 7.4 through 7.6 beginning on the next page of the text. Structurally these tables parallel the three just considered, however, the content deals with personal evaluations rather than demographic-contextual characteristics.

Table 7.4 facilitates comparisons between subjects who are either stimulated or constrained by factors in their immediate situation and by their evaluations. To take as an example the pair of variables showing one of the smallest or least striking differences, look at the subtable created by societal alienation and objective cultural advantages. Here the "pure stimulus" or Type A is formed by the positive conjunction of low societal alienation and high OCA; 54 percent

## TABLE 7.4

### PERCENTAGES OF STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF EITHER STIMULI OR CONSTRAINTS BY CULTURAL OR INTERPERSONAL CONDITIONS AND EVALUATIONS; AND THE PERCENTAGE DIFFERENCE BETWEEN EACH STIMULI AND CONSTRAINTS PAIR

|  | Societal Alienation |  |  | Racial Alienation |  |  | Attitudes Toward School |  |  | Self-Image |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | "Low" Stimulus |  | "High" Constraint | "Low" Stimulus |  | "High" Constraint | "Positive" Stimulus |  | "Negative" Constraint | "Positive" Stimulus |  | "Negative" Constraint |
| **Objective Cultural Advantages:** |  |  |  |  |  |  |  |  |  |  |  |  |
| High OCA--Stimulus | 54% | (31PD) |  | 56% | (28PD) |  | 58% | (44PD) |  | 50% | (33PD) |  |
| Low OCA---Constraint |  |  | 23% |  |  | 28% |  |  | 14% |  |  | 17% |
| **Parents Pro-College:** |  |  |  |  |  |  |  |  |  |  |  |  |
| Both------Stimulus | 67% | (55PD) |  | 72% | (61PD) |  | 71% | (64PD) |  | 67% | (52PD) |  |
| None------Constraint |  |  | 12% |  |  | 11% |  |  | 6% |  |  | 15% |
| **Friends Plans:** |  |  |  |  |  |  |  |  |  |  |  |  |
| College---Stimulus | 68% | (47PD) |  | 72% | (48PD) |  | 67% | (53PD) |  | 66% | (43PD) |  |
| Other-----Constraint |  |  | 21% |  |  | 24% |  |  | 14% |  |  | 22% |

## TABLE 7.5

### PERCENTAGES OF STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF STIMULUS AND CONSTRAINT BY CULTURAL OR INTERPERSONAL CONDITIONS AND EVALUATIONS; AND THE PERCENTAGE DIFFERENCE BETWEEN EACH CROSS-INFLUENCED PAIR

| | Societal Alienation | | | Racial Alienation | | | Attitudes Toward School | | | Self-Image | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | "Low" Stimulus | | "High" Constraint | "Low" Stimulus | | "High" Constraint | "Positive" Stimulus | | "Negative" Constraint | "Positive" Stimulus | | "Negative" Constraint |
| **Objective Cultural Advantages:** | | | | | | | | | | | | |
| High OCA--Stimulus | | (7PD) | 38% | | (0PD) | 35% | | (-9PD) | 27% | | (6PD) | 43% |
| Low OCA---Constraint | 31% | | | 35% | | | 36% | | | 38% | | |
| **Parents Pro-College:** | | | | | | | | | | | | |
| Both------Stimulus | | (36PD) | 54% | | (37PD) | 57% | | (17PD) | 39% | | (38PD) | 50% |
| None------Constraint | 17% | | | 20% | | | 23% | | | 12% | | |
| **Friends Plans:** | | | | | | | | | | | | |
| College---Stimulus | | (23PD) | 54% | | (21PD) | 53% | | (2PD) | 40% | | (14PD) | 44% |
| Other-----Constraint | 31% | | | 32% | | | 38% | | | 30% | | |

## TABLE 7.6

### PERCENTAGE DIFFERENCES BETWEEN STUDENTS WHO BOTH DESIRE AND EXPECT COLLEGE AS A FUNCTION OF STIMULUS OR OF CONSTRAINT BY THEIR EVALUATIONS UNDER SPECIFIED CULTURAL AND INTERPERSONAL CONDITIONS

| | Societal Alienation | Racial Alienation | Attitudes Toward School | Self-Image |
|---|---|---|---|---|
| | "Low" "High" Stimulus--Minus--Constraint | "Low" "High" Stimulus--Minus--Constraint | "Positive" "Negative" Stimulus--Minus--Constraint | "Positive" "Negative" Stimulus--Minus--Constraint |
| **Objective Cultural Advantages:** | | | | |
| High OCA--Stimulus | 16PD | 21PD | 31PD | 7PD |
| Low OCA---Constraint | 8PD | 7PD | 22PD | 20PD |
| **Parents Pro-College:** | | | | |
| Both------Stimulus | 14PD | 15PD | 31PD | 17PD |
| None------Constraint | 5PD | 9PD | 16PD | 3PD |
| **Friends Plans:** | | | | |
| College---Stimulus | 15PD | 19PD | 27PD | 22PD |
| Other-----Constraint | 10PD | 9PD | 25PD | 8PD |

desire and expect college under these conducive conditions. The negative conjunction of high societal alienation and low OCA is Type D or "pure constraint", and 23 percent are high on educaional horizons. The difference between the percentages in Types A and D is 31PD, which indicates a substantial joint or cumulative effect of the two variables on the probability of a pro-college response. Inspection of the other percentages differences in Table 7.4 will disclose that all are quite large. In each case the percentage high on educational horizons in the Type A cell is greater than in the D cell; this shows that the effects are in the direction that was specified in the theory.

Before drawing final conclusions as to the cumulative impact of situational and dispositional variables, one final condition is to be met. The subtable range set by each Type A and Type D cell should contain the percentages observed in Type B and C cells. To make this comparison it is necessary to use Tables 7.4 and 7.5 for each subtable. Continuing the earlier example of societal alienation and objective cultural advantages, in Table 7.4 the range of the subtable is 23-54 percent, and the Table 7.5 values are 31 and 38 percent, both well within the specified range. This is true in every case except for self-image and parents pro-college. In that case the subtable range is 15-67 percent, the offending or out-of-range value is 12 percent, but the difference between 12 and 15 is not statistically significant. For present purposes, it can be treated as chance fluctuation and ignored, however, statistical non-significance has implications that are important in another connection to be discussed later. For now--despite one apparent exception--it can be concluded that the effects of the independent situational factors and the intervening dispositional evaluations are joint and cumulative. Furthermore, these effects are all large. Thus far, the fit between the data and the model is good.

The percentage differences found in Table 7.5 may be used to make comparisons of pairs of determinants to see if one has a greater influence on educational horizons than the other. As before, numbers approaching zero show approximate equality of influence vis-a-vis the probability of being pro-college, and the minus sign denotes that an evaluation makes a bigger difference than a situational factor. This latter event occurs only once. Attitudes toward school are somewhat more important than objective cultural advantages, i.e., if a student is low OCA but has positive school attitudes, he is more likely to desire and expect college than the high OCA student who is negative about his school.

Contrasting the percentage differences in each column of Table 7.5 indicates that objective cultural advantages has the least and parents pro-college the most power to off-set influences by student evaluations. Although the percentages of students high on horizons despite evaluative constraints (Type B cells) are about the same whether both parents favor college or friends plan on college, it is interesting to note that with positive evaluations (Type C cells), students are more apt to be pro-college if constrained by their friends' non-college plans rather than by lack of parents' support in favor of college. These data, and comparable data in Tables 7.2, 7.3, and 7.4, point out that parents and friends are of approximately equal importance in influencing students to go to college, but it is the parents--not peers--who most often dissuade children from desiring and expecting college.

The evidence and discussion have implied that student evaluations modify or alter the operation of the independent or situational variables on the probability of being high on educational horizons. To measure the amount of intervention and to confirm this aspect of the model, it is necessary to examine Table 7.6 which was derived from Tables 7.4 and 7.5. To show this the subtable of societal alienation and objective cultural advantages will be used. Type A cell percent minus Type B cell percent (54 - 38, both above the diagonals) yields a difference (16PD, above the line) indicating among high OCA subjects that this amount of variation in the likelihood of being pro-college is attributable to intervention by societal alienation. Taking Type C and D cell percentages (31 - 23, below the diagonals) produces a difference (8PD, below the line) which is not large but definitely is significant. This example illustrates that under either conditions of stimulus or constraint by objective cultural advantages, societal alienation intervenes to create important variations in the student responses. Attitudes toward society do have the specified effects on the independent-dependent relation.

In comparison with the differences just discussed, a further inspection of Table 7.6 reveals that most differences are of about the same magnitude and some are much larger. A few small ones appear, but there is only one non-significant difference. The case of self-image and the constraint condition of parents pro-college was noted earlier. What it means is that parental opposition determines the likelihood of college whether or not the student has positive self attitudes. Put differently, the intervening effects of self-image are dependent upon lack of parental opposition to college. This does not constitute a negation of the model, but it specifies a limiting condition.

It is evident from Table 7.6 that in almost every instance, possession of positive evaluations of the society, race, school, and self significantly increases the percentage of subjects who desire and expect to obtain a college education. In terms of the conceptual model, the effects of the cultural and interpersonal influences on student educational horizons can be significantly altered by the intervention of the subjects' personal evaluations. The extent that each of the evaluative sets does this will be treated briefly below.

The students' attitudes toward society do act in the manner just described, however, low societal alienation makes a very small, theoretically and practically inconsequential increase in the probability of being pro-college when parents fail to support or are opposed to college. Given some situational stimulus toward college, then a substantial difference in response occurs between the societally alienated students and those with positive evaluations of their society.

Racial alienation is similar to societal alienation, and its effects are parallel but slightly larger than those of societal alienation. Although positive attitudes toward their race makes a minimal difference among students who are constrained by being low on objective cultural advantages, it makes a marked increase in the percentage who desire and expect college when stimulated by high cultural advantages at home. As in the societal alienation subtables, presence of any situational stimulation pro-college leads to notable differences in the likelihood of college desires and expectations that are attributable to racial attitudes.

The students' attitudes toward school consistently have the largest, most impressive influence in over-coming or counteracting the effects of situational constraints. It is the only evaluative factor that substantially reduces the powerful negative impact of no parents pro-college. Furthermore, given stimulus by any of the independent variables, the subjects' evaluation of their school accounts for a dramatic shift in the probability of having high educational horizons. Even though each of the four levels of reality and students' evaluation of them is important, it is clear that the school is of fundamental, vital, crucial significance.

Self-image, or the subject's attitude toward himself as an object, already has been commented on in part. Other than school attitudes no other variable has such an impact in

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off-setting the constraints of cultural deprivation, i.e., having "low OCA". The small difference that it makes among the culturally advantaged suggests that within a relatively deprived environment the basic thing is the advantages. To this a positive self-image can add little and negative self attitudes do not detract from the possession of these advantages over the bulk of one's associates. Whether friends are planning on college or both parents favor college, self-image intervenes to produce large differences in the likelihood of desiring and expecting to go to college.

In conclusion, the empirical data of this study have given systematic support to the theoretically derived conceptual model. The correspondance or fit between the findings and the model is good. First the model was confirmed variable by variable; each was shown to stimulate and constrain the subjects' responses in the predicted manner. Then it was established that the variables displayed specified cumulative and modifying effects on the probability of having high educational horizons. Now the model as a whole has been confirmed.

## C. Some Final Implications

This study has demonstrated that educational horizons, as a form of social and behavioral response, are the function of: (1) initial stimulus or constraint by cultural and interpersonal conditions of the subjects' immediate situation, and (2) intervening stimulus or constraint by dispositional and personal characteristics of the subjects. Since the subjects are lower class black high school students, it is important to point out that their educational horizons were developed within comtemporary U.S. class and racial structures. While both of these situational or social structural conditions were controlled prior to study and thus their effects could not be separately analyzed, it is well-established that they are constraints on educational aspiration and schievements.

In view of the peripheral class and minority status of these students within their own society, the primary or focal question of the study has been: Why do some of these youths desire and expect a college education? The answer--a finding practical importance to educators and which is relevant to the operation of the American stratification system--is: They want a college education for about the same reasons that anyone else does. That is, basically the same sets of factors condition their responses that effect other persons in other classes and races. The problem seems to be a matter of frequency of stimulus and of constraint, rather than one of essentially different factors.

Stated differently, to be black and to be lower class does not mean that everything works against getting a higher education. In the immediate situations of many of the subjects there are cultural conditions in the home and intimate associates which encourage the development of high educational horizons. These students are very likely to desire and expect a college education. The study indicated that the following variables were closely related to educational horizons (they are listed in ascending order of importance): cultural deprivation, peer influences, and parental pressures. The first factor simply was dichotomized so its frequency is no help. However, 30 percent reported that their friends were planning on college. On parental pressures, 33 percent said that both parents wanted them to get a college education, and another 25 percent reported one parent with these desires. Since 36 percent of the subjects responded to these stimuli by both desiring and expecting to obtain a degree from a four year college or university, it would seem that increasing the frequency of thses stimuli (or reducing the frequency of those constraints which are implied, e.g., 70 percent reported their friends were not going to college) would be a means to induce more subjects to seek a higher education.

If cultural deprivation in the home could be reduced, and if the number of parents and friends exerting influences to attend college could be increased, then some increase in educational horizons and college educations could be expected. The practical implications would be marked. Under education is a basic factor in the epidemic "talent waste" that plagues the country today. Increasing the educational level of lower class Negroes would reduce the serious loss of skill and native ability that resides in this large population subgroup. Not only is the talent waste a loss in itself to the society, but it may be a significant contributing ingredient to social frustration and unrest. Although more education is certainly no magical "cure-all" for social ills, it could be the crucial key to unlocking the bonds that have held too many generations of Negroes and the poor imprisoned in the vicious cycle of poverty--poor education--poverty. In turn, solution of this problem would take some of the load off of the inadequate social welfare systems of the nation.

The preceding remarks have something of a utopian sound to them because programs like reduction of cultural deprivation in the home or manipulation of parents' feelings about the school and education are distinctly in disfavor in the United States. It is pointless to argue that products are promoted through the mass media's invasion of the home and its manipulation of persons of all ages. Since advertizing is sacrosanct in America, it could be used more to promote education among the socially disadvantaged. Perhaps it would be helpful. Perhaps PTAs--parent-teacher associations --could play a larger role in helping parents to see their function in this matter. In the context of the urban ghetto these solutions seem equally utopian, but professional educators and policy planners could exploit them more fully.

Inasmuch as dispositional and personal characteristics of the students intervene between their immediate social situations and their responses on educational horizons, would it not be logical to look at these factors to see which could change? Direct social intervention in the chain of stimulus --disposition--response is probably most feasible at the midpoint. Intervention after educational horizons are formed, becomes a socially and personally costly kind of rehabilitation effort similar to medical therapy to correct the ravages of a crippling disease or serious accident.

Of the four personal and contextual characteristics investigated, sex, age, and grade offer little or no promise within themselves, partly because they cannot be manipulated to any significant degree (if at all), partly because they do not have a substantial impact on the educational horizons of lower class black students. However, it is equally clear that academic track or course of study is manipulable, and it has an impressively high relationship to whether or not students come to desire and expect college.

If track were only the result of previously existing feelings about higher education, its utility would be limited, but this is not the case (for a brief discussion of some of the aspects of this issue, see Chapter III, p. 57). Track's main contribution operates though a combination of social processes including differential association and socialization. School policy-makers could use track less for discipline and behavioral reasons--rewarding middle class behavior and punishing bright kids who are bored with ordinary coursework, use dirty words, or are uncooperative in non-academic matters. Track could be used less for routine bureaucratic needs--to have the track full or balanced in enrollment, to keep aggressive teachers happy by giving them more bright students, to be sure expensive facilities are adequately and fully used, to please the demanding parent or member of the school board.... Separate and confidential interviews with three school counselors from another school system suggested that the foregoing were among those interests that prevented many schools from using track fairly and effectively to the best interests of the student. They also agreed that usually unless the student had strong feelings and the counselor was in agreement, student wishes were of only secondary import in determining track placement.

To increase the number of students who can appropriately desire and expect a college education, some consideration should be given to student attitudes or evaluations of their society, race, school, and self. Obviously educators cannot perform their primary functions and also conduct any large-scale assault on societal ills nor can they spend enough time as welfare workers and psychiatrists to repair all of the social and psychological breakage that occurs within the typical student-body in a ghetto high schoo. Nonetheless, well developed school programs could intervene to change or modify negative attitudes about the society and about race. School cannot be expected to convert "black extremists" or "white racists," however, a rudimentary understanding of the dynamics of this society and of responsible attempts to promote social change are to be expected from an adequate high school. So also, non-black as well as Negro students have a serious need to be aware of the history and of the important social and cultural contributions made by dark-skinned human beings; this could be very helpful in reducing alienation of students from their society and from the Negro as an important racial group. For black students it could become the basis of a healthy and realistic racial identification, and the basis of an improved self-image for some of them. It is likely that such programs imaginatively developed and openly presented to high school students would do a great deal to increase the school's relevance to comtemporary life.

Students' attitudes toward school consistently were seen to be one of the most important influences in counterbalancing negative situational factors and in reinforcing positive aspects in their environment. There still is much that educators and others can do to make school into a more pleasant, less frustrating, more relevant and rewarding part of young peoples' lives. Old course content needs replacement, new courses and programs must be developed, the role of the students in the educational process requires study, and teacher-student relations call for re-examination. All can be expected to effect student attitudes about school and their desires and expectations of higher education.

One of the interesting things about intervening in the stimulus--disposition--response chain at the point being discussed is that once these experiences and attitudes begin to change, through social interaction with their parents and school friends, a feedback process begins. It is reasonable to expect an increase in stimulus from the immediate situation that is greater than present levels. Furthermore, this increase can occur without directly manipulating cultural deprivation, parental pressures, and peer influences toward higher educational horizons--which would be a difficult and possibily impossible task to do both effectively and morally with our present knowledge.

Implications of this study for theory and for educational policy-makers has been presented throughout the body of this work more or less consistently. Numerous details briefly mentioned or omitted entirely in this summary may be found in one of the first six chapters. Obviously, other implications of these findings will have to be drawn by the person who is desirous of using them; they cannot all be set forth in a single work of this length. The implications of direct connection with social theory and educational policy have been dealt with at some length, however.

The general theoretical framework underlying the conceptual model is believed to be a useful contribution to the growing body of social knowledge and research. It proved to be a fruitful guide in the present study, and it is offered as a basis for future studies of a relatively broad or wide range of social behavior. Undoubtedly further work on other topics should lead to refinements and improvements in this type of approach.

# APPENDIX A

## Sources of Questionnaire Items

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# APPENDIX B

This appendix contains the operational definitions used in the disseration. In the appendix the definitions are ordered: demographic-contextual, independent, intervening, and dependent variable items. The following information is included:

1. Individual Items: All individual or single items; each item's marginal distribution; and, where collapsed, the manner of collapsing, new categories and new marginals.
2. Combined Items: All combinations of individual or single items; notation of reflection or reverse-scoring; the manner of combining and each combined item's categories and marginal distribution; and, where collapsed, the manner of collapsing, the new categories and new marginals.

## PERSONAL CHARACTERISTICS

### Age at Last Birthday

1 2% 11 years

2 7 12 years

3 11 13 years

4 14 14 years

5 16 15 years

6 22 16 years

7 19 17 years

8 9 18 years

9 1 19 or older

### Sex

1 50% Male

2 50 Female

## CONTEXTUAL CHARACTERISTICS

### Grade in School

1 15% Seventh

2 16 Eighth

3 16 Ninth

4 21 Tenth

5 19 Eleventh

6 14 Twelfth

The above categories were dichotomized as:

46% Junior high school

54 Senior high school

### Course of Study or Track

1 18% General

2 10 Vocational

3 34 Academic (College Preparatory)

4 33 Business (Commercial)

5 5 Other:________________________

These categories were collapsed to:

34% College track

66 Other tracks

## OBJECTIVE CULTURAL ADVANTAGES

Which of the following do you have in your house or apartment?

Musical instruments . . . . . . . . . . 1 48% Yes 2 52 No

Encyclopedia . . . . . . . . . . . . . 1 65% Yes 2 36 No

Do you get a daily newspaper regularly in your home?

1 66% Yes 2 34 No

How many books are in your home?

1 8% None, or very few (0-10)
2 30 A few books (11-25)
3 40 One bookcase full (26-100)
4 14 Two bookcases full (101-250)
5 7 Three or four bookcases full (251-500)
6 21 A room full - a library (501 or more books)

After reverse-scoring and trichotomizing the immediately preceeding item, the scores for all four items were summed, and the resulting distribution of respondents was:

| Score | Respondents |
|---|---|
| 4 | 10% |
| 5 | 18 |
| 6 | 25 |
| 7 | 26 |
| 8 | 16 |
| 9 | 5 |

Dichotomizing the fore-going distribution on the basis of the marginals produced:

53% Culturally advantaged

47 Culturally disadvantaged

## PARENTS PRO-COLLEGE

How much education does your mother want you to have?

1 2% Doesn't care whether I stay in high school

2 8 High school only

3 16 Vocational school or business school training

4 8 Junior college education

5 34 A college degree

6 21 Professional or graduate school

7 12 I don't know

How much education does your father want you to have?

1 4% Doesn't care whether I stay in high school

2 9 High school only

3 12 Vocational school or business school training

4 7 Junior college education

5 31 A college degree

6 17 Professional or graduate school

7 20 I don't know

After collapsing the above categories as indicated, the distribution of respondents by number of parents known to desire college was:

33% Both pro-college

25 One pro-college

41 None pro-college

# FRIENDS PLANS

What do most of your friends plan to do after high school?

1 ___30%___ Attend college

2 ___10___ Attend junior college or business school

3 ___5___ Get further vocational or technical training

4 ___16___ Work

5 ___6___ Enter the military service

6 ___33___ I do not know

Collapsing these marginals as noted above resulted in the following dichotomy of friends plans:

___30%___ College

___70___ Other

# SOCIETAL ALIENATION

How strongly do you agree or disagree with the following statements?

Check one answer for each statement:

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| These days a person doesn't really know who he can count on ... | 28% | 43 | 15 | 11 | 3 |
| Nowadays a person has to live pretty much for today and let tomorrow take care of itself | 23% | 35 | 16 | 20 | 6 |
| Things are changing so fast these days that one doesn't know what to expect from day to day.. | 28% | 51 | 11 | 7 | 2 |

In each item the first and second categories were collapsed and the fourth and fifth were collapsed. Then the three items' scores were summed, and the resultant distribution of respondents was:

| Score | Respondents |
|---|---|
| 3 | 42% |
| 4 | 15 |
| 5 | 24 |
| 6 | 7 |
| 7 | 7 |
| 8 | 3 |
| 9 | 3 |

The dichotomy noted by the brackets above was created on the basis of the marginals to obtain:

___57%__High societal alienation

___43___Low societal alienation

## RACIAL ALIENATION

How strongly do you agree or disagree with the following statements?

Check one answer for each statement:

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| People of my race do not get a fair deal out of life ...... | 33% | 26 | 19 | 16 | 6 |
| Members of my race have made important contributions to the "American way of life"... | 41% | 38 | 16 | 3 | 2 |
| I feel greatly handicapped because of my race ....... | 8% | 10 | 15 | 32 | 36 |
| Members of my race have a great deal to be proud of .... | 38% | 33 | 18 | 8 | 2 |
| People of my race don't have much change to be successful in life.... | 11% | 13 | 17 | 32 | 28 |
| Persons of my race should stand up and fight for their rights ..... | 48% | 32 | 13 | 5 | 2 |

Scores on the second and fourth items were reversed, all items were trichotomized as indicated above by brackets, and the new scores were summed to obtain the following distribution:

| Score | Respondents |
|---|---|
| 6 | 0% |
| 7 | 2 |
| 8 | 4 |
| 9 | 7 |
| 10 | 14 |
| 11 | 13 |
| 12 | 19 |
| 13 | 15 |
| 14 | 12 |
| 15 | 8 |
| 16 | 3 |
| 17 | 2 |
| 18 | 1 |

Finally, on the basis of the marginals these scores were collapsed to form the following categories:

27% High racial alienation
47 Medium racial alienation
26 Low racial alienation

## ATTITUDES TOWARD SCHOOL

How strongly do you agree or disagree with the following statements?

Check one answer for each statement:

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| This school is doing its best to give us a good education.... | 40% | 31 | 12 | 10 | 7 |
| School is often dull and monotonous ..... | 23% | 27 | 16 | 23 | 11 |
| Our schools do a poor job of preparing young people for life .. | 11% | 14 | 20 | 32 | 23 |
| A high school education is worth all the time and effort required ... | 60% | 29 | 6 | 3 | 2 |
| A person is foolish to keep on going to school if he can get a job ... | 5% | 4 | 7 | 39 | 46 |
| Most students are bored with school ... | 28% | 41 | 20 | 9 | 3 |

You know teenagers have all sorts of ideas about school. Some like going to school and some don't. How about you? Do you:

1 26% Like school a lot

2 59 Like school fairly well

3 8 Don't care one way or another

4 5 Dislike school

5 2 Dislike school very much

Scores on the second, fourth, sixth, and seventh items were reversed, each item was collapsed as bracketed, and the new scores were summed to produce:

| Score | Respondents |
|---|---|
| 7 | 1% |
| 8 | 4 |
| 9 | 6 |
| 10 | 10 |
| 11 | 12 |
| 12 | 11 |
| 13 | 13 |
| 14 | 13 |
| 15 | 11 |
| 16 | 9 |
| 17 | 6 |
| 18 | 3 |
| 19 | 1 |
| 20 | 0 |

On the basis of the marginals the indicated collapses were made, resulting in the following trichotomy:

| | |
|---|---|
| 33% | Positive school evaluation |
| 37 | Neutral school evaluation |
| 31 | Negative school evaluation |

## SELF-IMAGE

Below are a list of terms which describe people. How well would you say that each word describes you?

| | (1) Very Well | (2) Fairly Well | (3) A Little | (4) Not At All Well | (5) Don't Know |
|---|---|---|---|---|---|
| Hard-working .......... | 20% | 53 | 24 | 3 | 1 |
| Messy ............... | 4% | 8 | 37 | 43 | 8 |
| Ambitious ............. | 37% | 33 | 22 | 2 | 7 |
| Cooperative .......... | 41% | 46 | 11 | 2 | 2 |
| Cheerful ............ | 48% | 35 | 14 | 2 | 1 |
| Polite and courteous .. | 48% | 37 | 13 | 2 | 1 |
| Eager to learn ........ | 39% | 42 | 16 | 2 | 1 |
| Dependable ............ | 46% | 38 | 11 | 4 | 2 |
| Rude ................. | 4% | 4 | 27 | 56 | 10 |
| Well-behaved ......... | 42% | 41 | 13 | 3 | 1 |

On each item the first and second categories were collapsed, the third and fourth were collapsed, and the fifth was moved to the middle or second score position. All but the second and ninth items then were reverse-scored. Summing the ten scores produced the following distribution:

| Score | Respondents |
|---|---|
| 10 | 0.1% |
| 11 | 0.0 |
| 12 | 0.3 |
| 13 | 0.0 |
| 14 | 0.4 |
| 15 | 0.4 |
| 16 | 0.6 |

| Score | Respondents |
|---|---|
| 17 | 0.3% |
| 18 | 1.8 |
| 19 | 1.0 |
| 20 | 1.1 |
| 21 | 1.8 |
| 22 | 5.0 |
| 23 | 2.1 |

| Score | Respondents |
|---|---|
| 24 | 8.5% |
| 25 | 4.4 |
| 26 | 11.6 |
| 27 | 3.3 |
| 28 | 19.8 |
| 29 | 4.1 |
| 30 | 31.3 |

Finally, these scores were collapsed as indicated above to form the following categories:

26% Negative self-image (low)

43 Neutral self-image (medium)

31 Positive self-image (high)

## COLLEGE--DESIRED/EXPECTED

What is the greatest amount of education you would like to have during your life?

1 2% I would like to drop out of high school
2 20 Graduate from high school
3 19 Obtain voaational or business school training
4 7 Go to a junior college
5 27 Graduate from a regular four-year college
6 25 Study for advanced college degrees

What is the greatest amount of education you realistically expect in your life?

1 2% I don't expect to finish high school
2 29 Graduate from high school
3 19 Obtain vocational or business school training
4 11 Go to a junior college
5 27 Graduate from a regular four-year college
6 12 Study for advanced college degrees

After collapsing the above categories as bracketed, the items were combined to form the following categories:

36% College both desired and expected
18 College either desired or expected
46 College neither desired nor expected

# APPENDIX C

This appendix contains operational definitions not used in the dissertation. For some of the concepts presented in the theoretical model, more than one operational definition or measure was employed in the study. Because of the principle of the interchangeability of indices and the high empirical relationship between the operational definitions developed to represent each concept, one measure per concept was selected for use in the dissertation. Those so utilized are detailed in Appendix B; the alternate measures are found in the following pages. The order of items and the information presented in this appendix follow the pattern set in Appendix B. For tables showing the relationships between the alternate operational definitions and those used in the text of the dissertations, see Appendix E.

## ROSENBERG SELF-ESTEEM

How strongly do you agree or disagree with the following statements?

Check one answer for each statement:

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| I feel that I have a number of good qualities ....... | 36 | 52 | 10 | 1 | 1 |
| All in all, I am inclined to feel that I am a failure... | 5 | 11 | 14 | 39 | 31 |
| At times I think that I am no good at all ... | 10 | 31 | 14 | 26 | 19 |
| I feel that I'm a person of worth, at least on an equal plane with others .. | 32 | 50 | 11 | 5 | 2 |
| I feel that I do not have much to be proud of | 9 | 15 | 11 | 38 | 27 |
| On the whole I am satisfied with myself... | 26 | 38 | 14 | 16 | 6 |
| I take a positive attitude towards myself .. | 22 | 43 | 23 | 11 | 2 |
| I certainly feel useless at times ... | 11 | 43 | 15 | 21 | 10 |
| I am able to do things as well as most other people... | 37 | 46 | 9 | 6 | 1 |
| I wish I could have more respect for myself.. | 14 | 23 | 16 | 31 | 16 |

Scores on the sceond, third, fifth, eighth, and tenth items were reversed, each item was collapsed as bracketed above, and the new scores were summed to obtain:

| Score | Respondents |
|---|---|
| 10 | 1.9% |
| 11 | 1.2 |
| 12 | 3.9 |
| 13 | 4.2 |
| 14 | 8.0 |
| 15 | 6.4 |
| 16 | 9.2 |

| Score | Respondents |
|---|---|
| 17 | 10.5% |
| 18 | 10.4 |
| 19 | 8.9 |
| 20 | 10.2 |
| 21 | 8.5 |
| 22 | 6.6 |
| 23 | 3.3 |

| Score | Respondents |
|---|---|
| 24 | 3.5% |
| 25 | 1.7 |
| 26 | 0.7 |
| 27 | 0.9 |
| 28 | 0.0 |
| 29 | 0.1 |

Finally, these scores were collapsed as indicated by the above brackets to produce:

___35%__High self-esteem

___40___Medium self-esteem

___25___Low self-esteem

## MIRROR-IMAGE

Now we would like to know how you think your teachers see you. How do you think they would describe you to someone else? Put yourself in their place and make believe they are filling out this form as it applies to you. My teachers would say that this term describes me...

(Check one for each term):

| | (1) Very Well | (2) Fairly Well | (3) A Little | (4) Not At All Well | (5) Don't Know |
|---|---|---|---|---|---|
| Ambitious ............ | 28% | 43 | 21 | 3 | 5 |
| Cooperative .......... | 35% | 45 | 16 | 2 | 2 |
| Polite and courteous .. | 47% | 37 | 12 | 2 | 2 |
| Well-behaved ......... | 39% | 42 | 14 | 2 | 3 |
| Hard-working ......... | 27% | 47 | 19 | 4 | 3 |
| Eager to learn ....... | 33% | 45 | 16 | 3 | 3 |
| Cheerful ............. | 39% | 36 | 17 | 4 | 3 |
| Messy ................ | 3% | 7 | 30 | 47 | 14 |
| Rude ................. | 4% | 6 | 23 | 53 | 15 |
| Dependable ........... | 42% | 39 | 11 | 3 | 5 |

On each item the first and second categories were collapsed, the third and fourth were collapsed, and the fifth was moved to the middle or second score position. All but the eighth and ninth items then were reverse-scored. Summing the ten scores produced the following distribution:

| Score | Respondents |
|---|---|
| 10 | 0.0% |
| 11 | 0.0 |
| 12 | 0.0 |
| 13 | 0.1 |
| 14 | 1.7 |
| 15 | 0.5 |
| 16 | 1.3 |
| 17 | 0.6% |
| 18 | 2.2 |
| 19 | 1.2 |
| 20 | 6.1 |
| 21 | 1.8 |
| 22 | 5.4 |
| 23 | 2.4 |
| 24 | 7.3% |
| 25 | 2.3 |
| 26 | 12.6 |
| 27 | 3.9 |
| 28 | 16.5 |
| 29 | 4.6 |
| 30 | 29.4 |

The above scores were collapsed as indicated by the brackets to form the following categories:

31% Negative mirror-image (low)

40 Neutral mirror-image (medium)

29 Positive mirror-image (high)

# COLLEGE PLANNED

What do you plan to do after high school?

1 37% Attend college

2 20 Attend junior college or business school

3 14 Get further vocational or technical training

4 11 Work

5 7 Enter the military service

6 11 I do not know

The categories were collapsed, as indicated above, to form the following:

37% College education plans (high)

34 Other education plans (medium)

29 No education plans (low)

# APPENDIX D

This appendix contains the major tables discussed in the text. All tables are ordered by when they are first presented in the text. The initial digit of the table number refers to the chapter wherein the presentation is made. The number following the decimal is the order of presentation within the chapter.

## Table 2.1

### THE RELATIONSHIP BETWEEN MIRROR-IMAGE AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- DESIRED/EXPECTED | MIRROR-IMAGE | | |
|---|---|---|---|
| | Positive | Neutral | Negative |
| Both | 46.2% | 38.0% | 24.1% |
| Either | 13.1 | 20.3 | 22.8 |
| Neither | 40.7 | 41.6 | 53.1 |
| | (221) | (305) | (228) |

$X^2=26.5$ p=.001 V=.133

## Table 2.2

## THE RELATIONSHIP BETWEEN SELF-ESTEEM AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | SELF-ESTEEM | | |
|---|---|---|---|
| DESIRED/EXPECTED | High | Medium | Low |
| Both | 44.1% | 34.1% | 28.1% |
| Either | 16.4 | 18.1 | 22.2 |
| Neither | 39.5 | 47.8 | 49.7 |
| | (256) | (293) | (185) |

$X^2$=13.3 p=.02 V=.095

## Table 2.3

## THE RELATIONSHIP BETWEEN AGE AND GRADE

| | AGE | | | | | | |
|---|---|---|---|---|---|---|---|
| GRADE | 12 or less | 13 yrs. | 14 yrs. | 15 yrs. | 16 yrs. | 17 yrs. | 18 or more |
| 7th | 89.2% | 36.0% | 21.7% | 0.8% | 1.1% | 0.6% | 0.0% |
| 8th | 8.1 | 58.1 | 36.5 | 19.8 | 2.2 | 0.0 | 0.0 |
| 9th | 0.0 | 5.8 | 33.9 | 38.9 | 15.6 | 3.9 | 0.0 |
| 10th | 2.7 | 0.0 | 7.8 | 36.5 | 43.6 | 20.1 | 3.5 |
| 11th | 0.0 | 0.0 | 0.0 | 4.0 | 35.2 | 43.5 | 23.5 |
| 12th | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 31.8 | 73.3 |
| | (74) | (86) | (115) | (126) | (179) | (154) | (86) |

$X^2$=1249.1 p=.001 V=.552

### Table 3.1

### THE RELATIONSHIP BETWEEN EDUCATION DESIRED AND EDUCATION EXPECTED

| EDUCATION EXPECTED | EDUCATION DESIRED |  |  |
|---|---|---|---|
|  | College or More | Junior College, Business School, Etc. | High School or Less |
| College or More | 69.5% | 2.4% | 8.4% |
| Junior College, Business School, Etc. | 15.6 | 72.9 | 14.0 |
| High School or Less | 14.9 | 24.7 | 77.5 |
|  | (416) | (207) | (178) |
|  | $X^2$=545.6 | p=.001 | V=.584 |

## Table 3.2

### THE RELATIONSHIP BETWEEN SEX AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | SEX | |
|---|---|---|
| DESIRED/EXPECTED | Male | Female |
| Both | 39.0% | 33.2% |
| Either | 20.2 | 16.9 |
| Neither | 40.8 | 49.9 |
| | (392) | (397) |

$X^2$=6.54 p=.05 V=.091

## Table 3.3

### THE RELATIONSHIP BETWEEN GRADE AND COLLEGE--DESIRED/EXPECTED

| COLLEGE--<br>DESIRED/EXPECTED | GRADE<br>7 th | <br>8 th | <br>9 th | <br>10 th | <br>11 th | <br>12 th |
|---|---|---|---|---|---|---|
| Both | 42.0% | 38.6% | 28.7 | 32.1% | 35.9% | 41.6% |
| Either | 16.0 | 16.5 | 23.0 | 17.0 | 18.3 | 19.5 |
| Neither | 42.0 | 44.9 | 48.4 | 50.9 | 45.8 | 38.9 |
|  | (119) | (127) | (122) | (165) | (153) | (113) |

$X^2$=9.82 p=.50 V=.078

## Table 3.4

### THE RELATIONSHIP BETWEEN GRADE AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | GRADE | |
|---|---|---|
| DESIRED/EXPECTED | Junior High | Senior High |
| Both | 36.4% | 36.0% |
| Either | 18.5 | 18.1 |
| Neither | 45.1 | 45.9 |
| | (368) | (431) |

$X^2$=.056 p=.98 V=.008

## Table 3.5

### THE RELATIONSHIP BETWEEN COURSE OF STUDY AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | COURSE OF STUDY | | | | |
|---|---|---|---|---|---|
| DESIRED/EXPECTED | Academic | General | Business | Vocational | Other |
| Both | 63.6% | 27.3% | 22.2% | 14.1% | 15.0% |
| Either | 18.8 | 18.8 | 16.1 | 23.9 | 17.5 |
| Neither | 17.6 | 53.9 | 61.7 | 62.0 | 67.5 |
| | (250) | (128) | (248) | (71) | (40) |

$X^2=152.3$ p=.001 V=.321

## Table 3.6

## THE RELATIONSHIP BETWEEN COURSE OF STUDY AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- DESIRED/EXPECTED | COURSE OF STUDY | |
|---|---|---|
| | College Track | Other Tracks |
| Both | 63.6% | 21.8% |
| Either | 18.8 | 18.1 |
| Neither | 17.6 | 60.2 |
| | (250) | (487) |

$X^2$=145.9 p=.001 V=.445

Table 3.7

THE RELATIONSHIP BETWEEN SEX AND GRADE
AND COLLEGE--DESIRED/EXPECTED

| | SEX | | | |
|---|---|---|---|---|
| | Male | | Female | |
| | GRADE | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Senior High | Junior High | Senior High | Junior High |
| Both | 40.1% | 38.0% | 32.4% | 34.4% |
| Either | 21.2 | 18.4 | 15.0 | 19.1 |
| Neither | 38.7 | 43.6 | 52.6 | 46.4 |
| | (212) | (179) | (213) | (183) |

$X^2$=9.05 p=.10 V=.076

## Table 3.8

### THE RELATIONSHIP BETWEEN SEX AND COURSE OF STUDY AND COLLEGE--DESIRED/EXPECTED

| | SEX | | | |
|---|---|---|---|---|
| | Male | | Female | |
| | COURSE OF STUDY | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 62.9% | 25.4% | 65.2% | 17.9% |
| Either | 19.7 | 19.4 | 17.4 | 17.5 |
| Neither | 17.4 | 55.2 | 17.4 | 64.6 |
| | (132) | (232) | (115) | (246) |

$X^2=151.2$ p=.001 V=.323

## Table 3.9

## THE RELATIONSHIP BETWEEN GRADE AND COURSE OF STUDY AND COLLEGE--DESIRED/EXPECTED

| | GRADE | | | |
|---|---|---|---|---|
| | Seniors | | Juniors | |
| | COURSE OF STUDY | | | |
| COLLEGE-- DESIRED/EXPECTED | College | Other | College | Other |
| Both | 68.1% | 17.4% | 57.8% | 26.3% |
| Either | 17.0 | 17.8 | 21.1 | 18.1 |
| Neither | 14.9 | 64.9 | 21.1 | 55.6 |
| | (141) | (242) | (109) | (243) |

$X^2 = 153.2$ $p = .001$ $V = .323$

## Table 3.10

### THE RELATIONSHIP BETWEEN SOCIETAL ALIENATION AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | SOCIETAL ALIENATION | |
|---|---|---|
| DESIRED/EXPECTED | Low | High |
| Both | 43.9% | 30.2% |
| Either | 18.4 | 18.1 |
| Neither | 37.7 | 51.8 |
| | (342) | (454) |

$X^2$=18.6 p=.001 V=.153

## Table 3.11

### THE RELATIONSHIP BETWEEN RACIAL ALIENATION AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- DESIRED/EXPECTED | RACIAL ALIENATION | | |
|---|---|---|---|
| | Low | Medium | High |
| Both | 46.4% | 33.7% | 30.8% |
| Either | 16.5 | 18.7 | 19.9 |
| Neither | 37.1 | 47.6 | 49.3 |
| | (194) | (347) | (201) |

$X^2 = 12.3$ p=.02 V=.091

## Table 3.12

### THE RELATIONSHIP BETWEEN ATTITUDES TOWARD SCHOOL AND COLLEGE--DESIRED/EXPECTED

| COLLEGE--<br>DESIRED/EXPECTED | ATTITUDES TOWARD SCHOOL | | |
|---|---|---|---|
| | Positive | Neutral | Negative |
| Both | 48.6% | 38.9% | 19.7% |
| Either | 14.6 | 23.3 | 17.5 |
| Neither | 36.8 | 37.8 | 62.9 |
| | (247) | (275) | (229) |

$X^2$=56.9 p=.001 V=.195

Table 3.13

### THE RELATIONSHIP BETWEEN SELF-IMAGE AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | SELF-IMAGE | | |
|---|---|---|---|
| DESIRED/EXPECTED | Positive | Neutral | Negative |
| Both | 44.7% | 35.2% | 28.3% |
| Either | 19.4 | 19.8 | 19.7 |
| Neither | 35.9 | 45.0 | 52.0 |
| | (217) | (298) | (173) |

$X^2=13.1$ $p=.02$ $V=.098$

## Table 4.1

## THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- DESIRED/EXPECTED | OBJECTIVE CULTURAL ADVANTAGES | |
|---|---|---|
| | High | Low |
| Both | 45.4% | 26.3% |
| Either | 17.8 | 19.2 |
| Neither | 36.8 | 54.5 |
| | (416) | (369) |

$X^2=33.5$ p=.001 V=.206

Table 4.2

THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES
AND COLLEGE--DESIRED/EXPECTED, BY SEX

| | SEX | | | |
|---|---|---|---|---|
| | Male | | Female | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE-- DESIRED/EXPECTED | High | Low | High | Low |
| Both | 51.3% | 27.3% | 40.8% | 24.7% |
| Either | 19.6 | 20.2 | 16.1 | 18.5 |
| Neither | 29.1 | 52.5 | 43.1 | 56.7 |
| | (199) | (183) | (211) | (178) |

Male: $X^2$=26.6 p=.001 V=.264

Female: $X^2$=11.4 p=.001 V=.171

## Table 4.3

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY GRADE

| | GRADE | | | |
|---|---|---|---|---|
| | Senior High School | | Junior High School | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 48.9% | 22.2% | 42.2% | 30.2% |
| Either | 16.4 | 20.6 | 19.5 | 18.0 |
| Neither | 34.7 | 57.1 | 38.4 | 51.7 |
| | (225) | (189) | (185) | (172) |

Senior High School: $X^2$=32.4 p=.001 V=.280

Junior High School: $X^2$=7.134 p=.02 V=.141

## Table 4.4

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY COURSE OF STUDY

| | COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track | | Other Tracks | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 70.3% | 53.3% | 29.1% | 15.0% |
| Either | 15.2 | 25.6 | 19.6 | 16.6 |
| Neither | 14.6 | 21.1 | 51.3 | 68.4 |
| | (158) | (90) | (230) | (247) |

College Track: $X^2=7.27$ p=.02 V=.171

Other Tracks: $X^2=17.3$ p=.001 V=.191

## Table 4.5

## THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | |
|---|---|---|---|---|
| | Senior High/Male | | Junior High/Male | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 57.0% | 20.7% | 43.5% | 34.1% |
| Either | 19.3 | 23.9 | 20.0 | 16.5 |
| Neither | 23.7 | 55.4 | 36.5 | 49.5 |
| | (114) | (92) | (85) | (91) |

$X^2$=30.6 p=.001 V=.385

$X^2$=3.03 p=.20 V=.131

Table 4.5 (Continued)

THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | |
|---|---|---|---|---|
| | Senior High/Female | | Junior High/Female | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 40.5% | 23.7% | 41.0% | 25.9% |
| Either | 13.5 | 17.5 | 19.0 | 19.8 |
| Neither | 45.9 | 58.8 | 40.0 | 54.3 |
| | (111) | (97) | (100) | (81) |

Senior High/Female: $X^2$=6.66 p=.02 V=.179

Junior High/Female: $X^2$=4.96 p=.05 V=.166

## Table 4.6

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

| | SEX AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Male | | Other Tracks/Male | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 67.5% | 56.3% | 37.9% | 15.6% |
| Either | 20.5 | 18.8 | 19.4 | 18.9 |
| Neither | 12.0 | 25.0 | 42.7 | 65.6 |
| | (83) | (48) | (103) | (122) |

College Track/Male: $X^2$=3.69 p=.10 V=.168

Other Tracks/Male: $X^2$=16.1 p=.001 V=.267

## Table 4.6 (Continued)

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

|  | SEX AND COURSE OF STUDY |  |  |  |
|---|---|---|---|---|
|  | College Track/Female |  | Other Tracks/Female |  |
|  | OBJECTIVE CULTURAL ADVANTAGES |  |  |  |
| COLLEGE-- DESIRED/EXPECTED | High | Low | High | Low |
| Both | 74.3% | 50.0% | 22.0% | 13.3% |
| Either | 9.5 | 32.5 | 20.3 | 15.0 |
| Neither | 16.2 | 17.5 | 57.7 | 71.7 |
|  | (74) | (40) | (123) | (120) |

College Track/Female: $X^2$=10.2 p=.001 V=.299

Other Tracks/Female: $X^2$=5.35 p=.05 V=.148

Table 4.7

THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES
AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Senior High | | Other Tracks/Senior High | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--DESIRED/EXPECTED | High | Low | High | Low |
| Both | 77.7% | 48.9% | 26.1% | 9.7% |
| Either | 9.6 | 31.9 | 21.6 | 14.5 |
| Neither | 12.8 | 19.1 | 52.3 | 75.8 |
| | (94) | (47) | (111) | (124) |

College Track/Senior High: $X^2$=13.8 p=.001 V=.313

Other Tracks/Senior High: $X^2$=15.8 p=.001 V=.259

## Table 4.7 (Continued)

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Junior High | | Other Tracks/Junior High | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--DESIRED/EXPECTED | High | Low | High | Low |
| Both | 59.4% | 58.1% | 32.2% | 20.5% |
| Either | 23.4 | 18.6 | 16.9 | 18.9 |
| Neither | 17.2 | 23.3 | 50.8 | 60.7 |
| | (64) | (43) | (118) | (122) |

College Track/Junior High: $X^2$=.768 p=.50 V=.085

Other Tracks/Junior High: $X^2$=4.29 p=.10 V=.134

## Table 4.8

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SOCIETAL ALIENATION

| | SOCIETAL ALIENATION | | | |
|---|---|---|---|---|
| | Low | | High | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | |
| COLLEGE--<br>DESIRED/EXPECTED | High | Low | High | Low |
| Both | 53.6% | 31.3% | 38.1% | 23.1% |
| Either | 16.7 | 21.5 | 18.8 | 17.2 |
| Neither | 29.7 | 47.2 | 43.0 | 59.7 |
| | (192) | (144) | (223) | (221) |

$X^2$=17.2 p=.001 V=.226

$X^2$=14.4 p=.001 V=.180

## Table 4.9

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY RACIAL ALIENATION

| | RACIAL ALIENATION | | | | | |
|---|---|---|---|---|---|---|
| | Low | | Medium | | High | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | | | |
| COLLEGE--DESIRED/EXPECTED | High | Low | High | Low | High | Low |
| Both | 56.1% | 34.5% | 43.0% | 24.4% | 34.7% | 27.8% |
| Either | 14.0 | 20.2 | 19.6 | 18.1 | 18.8 | 20.6 |
| Neither | 29.9 | 45.2 | 37.4 | 57.5 | 46.5 | 51.5 |
| | (107) | (84) | (179) | (160) | (101) | (97) |
| | $X^2$=8.79 p=.01 V=.215 | | $X^2$=15.9 p=.001 V=.217 | | $X^2$=1.07 p=.50 V=.074 | |

## Table 4.10

### THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY ATTITUDES TOWARD SCHOOL

| | ATTITUDES TOWARD SCHOOL | | | | | |
|---|---|---|---|---|---|---|
| | Positive | | Neutral | | Negative | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | | | |
| COLLEGE-- DESIRED/EXPECTED | High | Low | High | Low | High | Low |
| Both | 58.0% | 36.2% | 48.0% | 28.0% | 27.4% | 13.8% |
| Either | 10.9 | 20.0 | 21.7 | 26.3 | 20.8 | 13.8 |
| Neither | 31.2 | 43.8 | 30.3 | 45.8 | 51.9 | 72.4 |
| | (138) | (105) | (152) | (118) | (106) | (116) |
| | $X^2$=11.8 p=.001 V=.220 | | $X^2$=11.7 p=.001 V=.208 | | $X^2$=10.3 p=.001 V=.216 | |

Table 4.11

THE RELATIONSHIP BETWEEN OBJECTIVE CULTURAL ADVANTAGES AND COLLEGE--DESIRED/EXPECTED, BY SELF-IMAGE

| | SELF-IMAGE | | | | | |
|---|---|---|---|---|---|---|
| | Positive | | Neutral | | Negative | |
| | OBJECTIVE CULTURAL ADVANTAGES | | | | | |
| COLLEGE--DESIRED/EXPECTED | High | Low | High | Low | High | Low |
| Both | 50.0% | 37.6% | 43.0% | 25.0% | 43.4% | 17.4% |
| Either | 15.6 | 23.7 | 21.2 | 18.8 | 15.8 | 22.8 |
| Neither | 34.4 | 38.7 | 35.8 | 56.3 | 40.8 | 59.8 |
| | (122) | (93) | (165) | (128) | (76) | (92) |

Positive: $X^2$=3.88 p=.10 V=.134

Neutral: $X^2$=13.7 p=.001 V=.216

Negative: $X^2$=13.7 p=.001 V=.285

## Table 5.1

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- | PARENTS PRO-COLLEGE | | |
|---|---|---|---|
| DESIRED/EXPECTED | Both | One | None |
| Both | 60.1% | 39.5% | 14.2% |
| Either | 18.1 | 19.5 | 17.9 |
| Neither | 21.8 | 41.0 | 67.9 |
| | (271) | (200) | (330) |

$X^2=158.6$ p=.001 V=.315

## Table 5.2

## THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SEX

|  | SEX |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Male |  |  | Female |  |  |
|  | PARENTS PRO-COLLEGE |  |  |  |  |  |
| COLLEGE-- DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 59.4% | 45.9% | 15.3% | 62.1% | 32.3% | 13.3% |
| Either | 20.3 | 19.4 | 20.0 | 16.1 | 20.2 | 15.6 |
| Neither | 20.3 | 34.7 | 64.7 | 21.8 | 47.5 | 71.1 |
|  | (143) | (48) | (150) | (124) | (99) | (173) |
|  | $X^2$=74.4 | p=.001 | V=.309 | $X^2$=88.0 | p=.001 | V=.333 |

## Table 5.3

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY GRADE

| | GRADE | | | | | |
|---|---|---|---|---|---|---|
| | Senior High School | | | Junior High School | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 67.2% | 41.6% | 12.4% | 54.4% | 36.5% | 16.9% |
| Either | 19.1 | 16.8 | 18.1 | 17.6 | 22.9 | 16.9 |
| Neither | 13.7 | 41.6 | 69.4 | 27.9 | 40.6 | 66.2 |
| | (131) | (101) | (193) | (136) | (96) | (130) |
| | $X^2$=119.0 | p=.001 | V=.375 | $X^2$=49.1 | p=.001 | V=.261 |

### Table 5.4

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY COURSE OF STUDY

| | COURSE OF STUDY | | | | | |
|---|---|---|---|---|---|---|
| | College Track | | | Other Tracks | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 80.2% | 61.2% | 29.8% | 39.7% | 26.6% | 9.7% |
| Either | 13.5 | 23.9 | 24.6 | 22.2 | 16.9 | 16.5 |
| Neither | 6.3 | 14.9 | 45.6 | 38.1 | 56.5 | 73.8 |
| | (126) | (67) | (57) | (126) | (124) | (237) |
| | $X^2$=54.3 | p=.001 | V=.329 | $X^2$=55.2 | p=.001 | V=.238 |

## Table 5.5

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | | | |
|---|---|---|---|---|---|---|
| | Senior High/Male | | | Junior High/Male | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 64.0% | 47.9% | 15.7% | 54.4% | 44.0% | 14.8% |
| Either | 24.0 | 18.8 | 20.2 | 16.2 | 20.0 | 19.7 |
| Neither | 12.0 | 33.3 | 64.0 | 29.4 | 36.0 | 65.6 |
| | (75) | (48) | (89) | (68) | (50) | (61) |
| | $X^2=54.0$ | $p=.001$ | $V=.357$ | $X^2=24.8$ | $p=.001$ | $V=.263$ |

## Table 5.5 (Continued)

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | | | |
|---|---|---|---|---|---|---|
| | Senior High/Female | | | Junior High/Female | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 71.4% | 35.8% | 9.6% | 54.4% | 28.3% | 18.8% |
| Either | 12.5 | 15.1 | 16.3 | 19.1 | 26.1 | 14.5 |
| Neither | 16.1 | 49.1 | 74.0 | 26.5 | 45.7 | 66.7 |
| | (56) | (53) | (104) | (68) | (46) | (69) |
| | $X^2$=67.0 | p=.001 | V=.397 | $X^2$=27.1 | p=.001 | V=.272 |

Table 5.6

THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE
AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

| | SEX AND COURSE OF STUDY | | | | | |
|---|---|---|---|---|---|---|
| | College Track/Male | | | Other Tracks/Male | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 74.3% | 63.6% | 34.5% | 45.3% | 34.9% | 7.6% |
| Either | 17.1 | 27.3 | 17.2 | 21.9 | 15.9 | 20.0 |
| Neither | 8.6 | 9.1 | 48.3 | 32.8 | 49.2 | 72.4 |
| | (70) | (33) | (29) | (64) | (63) | (105) |
| | $X^2$=26.8 | p=.001 | V=.318 | $X^2$=37.7 | p=.001 | V=.285 |

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## Table 5.6 (Continued)

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

| | SEX AND COURSE OF STUDY | | | | | |
|---|---|---|---|---|---|---|
| | College Track/Female | | | Other Tracks/Female | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 87.3% | 58.8% | 26.9% | 35.6% | 15.5% | 10.9% |
| Either | 9.1 | 20.6 | 30.8 | 23.7 | 19.0 | 14.0 |
| Neither | 3.6 | 20.6 | 42.3 | 40.7 | 65.5 | 75.2 |
| | (55) | (34) | (26) | (59) | (58) | (129) |
| | $X^2$=30.7 | p=.001 | V=.365 | $X^2$=23.9 | p=.001 | V=.220 |

## Table 5.7

### THE RELATIONSHIF BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | | | |
|---|---|---|---|---|---|---|
| | College Track/Senior High | | | Other Tracks/Senior High | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE-- DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 87.1% | 62.5% | 32.3% | 37.0% | 25.0% | 7.9% |
| Either | 10.0 | 22.5 | 25.8 | 30.4 | 12.5 | 15.7 |
| Neither | 2.9 | 15.0 | 41.9 | 32.6 | 62.5 | 76.4 |
| | (70) | (40) | (31) | (46) | (56) | (140) |
| | $X^2$=35.9 | p=.001 | V=.357 | $X^2$=35.0 | p=.001 | V=.269 |

## Table 5.7 (Continued)

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | | | |
|---|---|---|---|---|---|---|
| | College Track/Junior High | | | Other Tracks/Junior High | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 71.4% | 59.3% | 26.9% | 41.2% | 27.9% | 12.6% |
| Either | 17.9 | 25.9 | 23.1 | 17.5 | 20.6 | 16.8 |
| Neither | 10.7 | 14.8 | 50.0 | 41.2 | 51.5 | 70.5 |
| | (56) | (27) | (26) | (80) | (68) | (95) |
| | $X^2=20.4$ | $p=.001$ | $V=.306$ | $X^2=20.9$ | $p=.001$ | $V=.207$ |

## Table 5.8

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SOCIETAL ALIENATION

| | SOCIETAL ALIENATION | | | | | |
|---|---|---|---|---|---|---|
| | Low | | | High | | |
| | PARENTS PRO-COLLEGE | | | | | |
| COLLEGE--<br>DESIRED/EXPECTED | Both | One | None | Both | One | None |
| Both | 67.2% | 49.5% | 17.3% | 53.7% | 31.4% | 12.4% |
| Either | 14.8 | 20.4 | 20.5 | 21.1 | 18.1 | 15.8 |
| Neither | 18.0 | 30.1 | 62.2 | 25.2 | 50.5 | 71.8 |
| | (122) | (93) | (127) | (147) | (105) | (202) |
| | $X^2$=71.8 | p=.001 | V=.324 | $X^2$=85.4 | p=.001 | V=.307 |

## Table 5.9

### THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY RACIAL ALIENATION

| | RACIAL ALIENATION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Low | | | Medium | | | High | | |
| | PARENTS PRO-COLLEGE | | | | | | | | |
| COLLEGE--DESIRED/EXPECTED | Both | One | None | Both | One | None | Both | One | None |
| Both | 72.1% | 54.4% | 19.7% | 57.1% | 33.7% | 14.1% | 56.7% | 32.6% | 11.0% |
| Either | 14.8 | 19.3 | 15.8 | 19.3 | 20.9 | 16.9 | 20.9 | 16.3 | 20.9 |
| Neither | 13.1 | 26.3 | 64.5 | 23.5 | 45.3 | 69.0 | 22.4 | 37.2 | 68.1 |
| | (61) | (57) | (76) | (119) | (86) | (142) | (67) | (43) | (91) |
| | $X^2$=48.1 | p=.001 | V=.352 | $X^2$=64.4 | p=.001 | V=.305 | $X^2$=43.0 | p=.001 | V=.327 |

Table 5.10

THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE
AND COLLEGE--DESIRED/EXPECTED, BY ATTITUDES TOWARD SCHOOL

|  | ATTITUDES TOWARD SCHOOL |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | Positive |  |  | Neutral |  |  | Negative |  |  |
| COLLEGE-- | PARENTS PRO-COLLEGE |  |  |  |  |  |  |  |  |
| DESIRED/EXPECTED | Both | One | None | Both | One | None | Both | One | None |
| Both | 70.7% | 52.2% | 22.7% | 63.9% | 40.8% | 15.0% | 39.4% | 23.1% | 6.3% |
| Either | 7.6 | 19.4 | 18.2 | 27.8 | 21.1 | 20.6 | 21.2 | 19.2 | 14.4 |
| Neither | 21.7 | 28.4 | 59.1 | 8.2 | 38.0 | 64.5 | 39.4 | 57.7 | 79.3 |
|  | (92) | (67) | (88) | (97) | (71) | (107) | (66) | (52) | (111) |
|  | $X^2$=45.3 | p=.001 | V=.303 | $X^2$=75.3 | p=.001 | V=.370 | $X^2$=35.4 | p=.001 | V=.278 |

# Table 5.11

## THE RELATIONSHIP BETWEEN PARENTS PRO-COLLEGE AND COLLEGE--DESIRED/EXPECTED, BY SELF-IMAGE

| | SELF-IMAGE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Positive | | | Neutral | | | Negative | | |
| | PARENTS PRO-COLLEGE | | | | | | | | |
| COLLEGE--DESIRED/EXPECTED | Both | One | None | Both | One | None | Both | One | None |
| Both | 66.7% | 47.7% | 12.3% | 60.2% | 40.8% | 13.2% | 50.0% | 33.3% | 14.9% |
| Either | 18.4 | 21.5 | 18.5 | 20.4 | 15.5 | 21.7 | 20.5 | 21.4 | 18.4 |
| Neither | 14.9 | 30.8 | 69.2 | 19.4 | 43.7 | 65.1 | 29.5 | 45.2 | 66.7 |
| | (87) | (65) | (65) | (98) | (71) | (129) | (44) | (42) | (87) |
| | $X^2$=56.2 | p=.001 | V=.360 | $X^2$=62.6 | p=.001 | V=.324 | $X^2$=21.6 | p=.001 | V=.250 |

Table 6.1

THE RELATIONSHIP BETWEEN FRIENDS PLANS
AND COLLEGE--DESIRED/EXPECTED

| COLLEGE-- DESIRED/EXPECTED | FRIENDS PLANS College | FRIENDS PLANS Other |
|---|---|---|
| Both | 60.5% | 25.3% |
| Either | 12.3 | 20.6 |
| Neither | 27.2 | 54.1 |
| | (243) | (549) |

$X^2=90.7$ p=.001 V=.338

## Table 6.2

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SEX

| | SEX | | | |
|---|---|---|---|---|
| | Male | | Female | |
| | FRIENDS PLANS | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 59.5% | 30.4% | 63.1% | 20.0% |
| Either | 14.7 | 21.9 | 9.8 | 19.6 |
| Neither | 25.9 | 47.8 | 27.0 | 60.4 |
| | (116) | (270) | (122) | (270) |

$X^2$=29.2 p=.001 V=.275

$X^2$=70.3 p=.001 V=.423

## Table 6.3

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY GRADE

| | GRADE | | | |
|---|---|---|---|---|
| | Senior High School | | Junior High School | |
| | FRIENDS PLANS | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 60.4% | 22.8% | 63.1% | 27.6% |
| Either | 12.3 | 20.8 | 11.9 | 20.6 |
| Neither | 27.3 | 56.3 | 25.0 | 51.8 |
| | (154) | (268) | (84) | (272) |

Senior High School: $X^2$=60.0 p=.001 V=.377

Junior High School: $X^2$=35.3 p=.001 V=.315

## Table 6.4

## THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY COURSE OF STUDY

| COLLEGE-- DESIRED/EXPECTED | COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College-Track | | Other Tracks | |
| | FRIENDS PLANS | | | |
| | College | Other | College | Other |
| Both | 81.8% | 47.2% | 37.4% | 17.1% |
| Either | 10.7 | 25.6 | 15.0 | 18.7 |
| Neither | 7.4 | 27.2 | 47.7 | 64.3 |
| | (121) | (125) | (107) | (375) |

College-Track: $X^2$=32.6 p=.001 V=.364

Other Tracks: $X^2$=20.4 p=.001 V=.206

## Table 6.5

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | |
|---|---|---|---|---|
| | Senior High/Male | | Junior High/Male | |
| | FRIENDS PLANS | | | |
| COLLEGE--DESIRED/EXPECTED | College | Other | College | Other |
| Both | 57.1% | 30.6% | 64.1% | 30.1% |
| Either | 15.6 | 24.6 | 12.8 | 19.1 |
| Neither | 27.3 | 44.8 | 23.1 | 50.7 |
| | (77) | (134) | (39) | (136) |

Senior High/Male: $X^2$=14.3 p=.001 V=.261

Junior High/Male: $X^2$=15.1 p=.001 V=.294

## Table 6.5 (Continued)

## THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SEX AND GRADE

| | SEX AND GRADE | | | |
|---|---|---|---|---|
| | Senior High/Female | | Junior High/Female | |
| | FRIENDS PLANS | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 63.6% | 14.9% | 62.2% | 25.0% |
| Either | 9.1 | 17.2 | 11.1 | 22.1 |
| Neither | 27.3 | 67.9 | 26.7 | 52.9 |
| | (77) | (134) | (45) | (136) |
| | $X^2$=52.9 p=.001 V=.501 | | $X^2$=20.8 p=.001 V=.339 | |

Table 6.6

## THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

| | SEX AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Male | | Other Tracks/Male | |
| | FRIENDS PLANS | | | |
| COLLEGE--DESIRED/EXPECTED | College | Other | College | Other |
| Both | 79.6% | 51.3% | 40.0% | 20.7% |
| Either | 11.1 | 25.0 | 18.2 | 19.5 |
| Neither | 9.3 | 23.7 | 41.8 | 59.8 |
| | (54) | (76) | (55) | (174) |

College Track/Male: $X^2$=10.9 p=.001 V=.289

Other Tracks/Male: $X^2$=8.62 p=.01 V=.194

## Table 6.6 (Continued)

### THE RELATIONSHIP BETWEEN FRIENDS PLANS
### AND COLLEGE--DESIRED/EXPECTED, BY SEX AND COURSE OF STUDY

| | SEX AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Female | | Other Tracks/Female | |
| | FRIENDS PLANS | | | |
| COLLEGE--DESIRED/EXPECTED | College | Other | College | Other |
| Both | 86.2% | 39.6% | 34.7% | 13.3% |
| Either | 9.2 | 27.1 | 12.2 | 18.5 |
| Neither | 4.6 | 33.3 | 53.1 | 68.2 |
| | (65) | (48) | (49) | (195) |

$X^2$=27.8 p=.001 V=.496

$X^2$=12.4 p=.001 V=.225

## Table 6.7

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Senior High | | Other Tracks/Senior High | |
| | FRIENDS PLANS | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 83.1% | 47.4% | 27.4% | 14.0% |
| Either | 9.6 | 26.3 | 17.7 | 17.4 |
| Neither | 7.2 | 26.3 | 54.8 | 68.5 |
| | (83) | (57) | (62) | (178) |

$X^2=20.2$  p=.001  V=.380

$X^2=6.03$  p=.02  V=.159

## Table 6.7 (Continued)

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY GRADE AND COURSE OF STUDY

| | GRADE AND COURSE OF STUDY | | | |
|---|---|---|---|---|
| | College Track/Junior High | | Other Tracks/Junior High | |
| | FRIENDS PLANS | | | |
| COLLEGE--DESIRED/EXPECTED | College | Other | College | Other |
| Both | 78.9% | 47.1% | 51.1% | 20.0% |
| Either | 13.2 | 25.0 | 11.1 | 19.5 |
| Neither | 7.9 | 27.9 | 37.8 | 60.5 |
| | (38) | (68) | (45) | (195) |
| | $X^2$=10.6 p=.001 | V=.316 | $X^2$=18.5 p=.001 | V=.278 |

## Table 6.8

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SOCIETAL ALIENATION

| | SOCIETAL ALIENATION | | | |
|---|---|---|---|---|
| | Low | | High | |
| | FRIENDS PLANS | | | |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other |
| Both | 68.4% | 31.1% | 53.6% | 21.1% |
| Either | 10.3 | 22.1 | 13.6 | 19.5 |
| Neither | 21.4 | 46.8 | 32.8 | 59.4 |
| | (117) | (222) | (125) | (323) |
| | $X^2$=43.3 p=.001 V=.357 | | $X^2$=45.7 p=.001 V=.320 | |

## Table 6.9

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY RACIAL ALIENATION

|  | RACIAL ALIENATION |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Low |  | Medium |  | High |  |
|  | FRIENDS PLANS |  |  |  |  |  |
| COLLEGE--DESIRED/EXPECTED | College | Other | College | Other | College | Other |
| Both | 71.8% | 32.2% | 56.4% | 23.7% | 52.9% | 23.5% |
| Either | 9.9 | 19.0 | 11.9 | 21.6 | 17.6 | 20.1 |
| Neither | 18.3 | 48.8 | 31.7 | 54.8 | 29.4 | 56.4 |
|  | (71) | (121) | (101) | (241) | (51) | (149) |
|  | $X^2$=28.4 p=.001 V=.385 |  | $X^2$=34.4 p=.001 V=.317 |  | $X^2$=16.3 p=.001 V=.286 |  |

## Table 6.10

## THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY ATTITUDES TOWARD SCHOOL

| | ATTITUDES TOWARD SCHOOL | | | | | |
|---|---|---|---|---|---|---|
| | Positive | | Neutral | | Negative | |
| | FRIENDS PLANS | | | | | |
| COLLEGE-- DESIRED/EXPECTED | College | Other | College | Other | College | Other |
| Both | 67.0% | 38.3% | 65.2% | 25.1% | 40.0% | 13.6% |
| Either | 6.6 | 18.2 | 15.2 | 26.8 | 20.0 | 17.0 |
| Neither | 26.4 | 43.5 | 19.6 | 48.0 | 40.0 | 69.3 |
| | (91) | (154) | (92) | (179) | (50) | (176) |
| | $X^2$=19.7 | p=.001 V=.283 | $X^2$=41.6 | p=.001 V=.382 | $X^2$=19.4 | p=.001 V=.293 |

## Table 6.11

### THE RELATIONSHIP BETWEEN FRIENDS PLANS AND COLLEGE--DESIRED/EXPECTED, BY SELF-IMAGE

|  | SELF-IMAGE |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Positive |  | Neutral |  | Negative |  |
|  | FRIENDS PLANS |  |  |  |  |  |
| COLLEGE--<br>DESIRED/EXPECTED | College | Other | College | Other | College | Other |
| Both | 65.6% | 30.2% | 61.7% | 25.5% | 43.9% | 22.3% |
| Either | 12.2 | 23.8 | 12.3 | 21.7 | 19.5 | 20.0 |
| Neither | 22.2 | 46.0 | 25.9 | 52.8 | 36.6 | 57.7 |
|  | (90) | (126) | (81) | (212) | (41) | (130) |
|  | $X^2$=26.6 p=.001 V=.351 |  | $X^2$=33.7 p=.001 V=.339 |  | $X^2$=7.93 p=.01 V=.215 |  |

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# STUDENTS PERCEPTIONS OF THE
# SECONDARY SCHOOL CLIMATE

by

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# CHAPTER I

# INTRODUCTION

## A. Education and Attitudes

The development of attitudes, the direction that they take, and the intensity with which they are held must be considered as one of the integral components of the educative process. Eric Allen says that ". . . the formation of attitudes is one of the principal aims of education, though it is rarely given the attention it deserves."[1]

While the reasons for the importance of attitudes in education can be placed in different contexts, they all revolve around the process of motive arousal or motivation.[2] Thus, Allen also notes that:

> A further reason for paying attention to the attitudes of children towards school is that attitudes may be an important non-intellectual factor in the learning of school subjects and may condition the success of the teachers' efforts at motivation. Pupils have to be willing as well as able to learn.[3]

---

[1] Eric A. Allen, "Attitudes of Children and Adolescents in School," Educational Research, III (November, 1960), p. 66.

[2] Theodore M. Newcomb, Social Psychology (New York: Holt, Rinehart and Winston, 1950), p. 118.

[3] Allen, op. cit., p. 67.

Edgar Friedenberg, on the other hand, calls attention to a different, although not unrelated function.

> How a youngster reacts to the school largely determines his chance to get on in the world; whether he wants to get on in the world largely determines what his attitude toward the school will be.[1]

American schools are concerned with appropriate attitude formation in quite diffuse areas -- covering such things as the American economic system, sportsmanship and hygiene. This interest in attitudes, if not explicit, is implied in the various documents that have been compiled on the aims and objectives of education.[2]

As widespread as this concern may be, there is some question as to whether American schools have adequately provided for systematic evaluation of the kinds of attitudes that students form in the school setting. This point is very well made by Mayhew:

> It is paradoxical that formal education postulates as its most important outcomes such things as attitudes, values, feelings, appreciations, and opinions. Yet when it appraises its outcomes it typically seeks

---

[1] Edgar Z. Friedenberg, The Vanishing Adolescent (New York: Dell Publishing Company, Inc., 1962), p. 73.

[2] See for example, Educational Policies Commission, The Purposes of Education in American Democracy (Washington, D.C.: American Council on Education, 1938).

> evidence of knowledge, the power to manipulate, the ability to think critically and the techniques of analysis and synthesis.[1]

A rather gross generalization about this problem is that attitude evaluation in American education is, for the most part, dependent on second-hand inferences -- usually derived from students' performance on achievement measures or random teacher observations.

## B. Attitudes and Perception

An attitude is, essentially, a theoretical concept inferred from observed behavior.[2] Newcomb defines an attitude as,

> . . . the individual's organization of psychological processes, as inferred from his behaviour, with respect to some aspect of the world which he distinguishes from other aspects. It represents the residue of his previous experience with which he approaches any subsequent situation including that aspect and, together with the contemporary influences in such a situation, determines his behaviour in it. Attitudes are enduring in the sense that such residues are carried over to new situations, but they change in so far as new residues are acquired through experience in new situations.[3]

---

[1] Lewis B. Mayhew, "Measurement of Noncognitive Objectives in the Social Studies," Evaluation in Social Studies, Thirty-Fifth Yearbook of the National Council for the Social Studies (Washington, D.C.: National Education Association, 1965), p. 115.

[2] Newcomb, op. cit., pp. 120-121.

[3] Theodore M. Newcomb, "Attitudes," A Dictionary of the Social Sciences, eds. J. Gould and W. L. Kolb (New York: The Free Press of Glencoe, 1964), pp. 40-41.

From the foregoing it can be seen that attitude formation requires some kind of interaction between the individual and the environment; furthermore, it also involves the individual's attempt to define or clarify the environment.[1] Within a given situation an attitude which an individual holds provides a means for understanding and, possibly, predicting how that individual is predisposed to act.

The processes of attitude formation are closely related to and somewhat determined by the principles of perception.[2] Perception, for our purposes, implies much more than an awareness of an object. It is a way of evaluating or organizing a situation in preparation for the actions that might be carried out toward it. In developing an attitude toward an object, the object is perceived, not by itself, but in some frame of reference. This frame of reference is "supplied," that is, it is determined by previous experience and also by present circumstances.

The relationship between perception and attitude formation can perhaps best be summarized in the following statement.

---

[1] Willard Waller, The Sociology of Teaching (New York: Science Editions, John Wiley and Sons, Inc., 1965), p. 318.

[2] See Newcomb, Social Psychology, pp. 88-106, for a discussion of the principles of perception and motivated behavior.

> Perception is thus in part a matter of making judgements or discriminations . . . . The general principle is simply that such judgements are determined not only by the properties of the object being perceived but also by a supplied frame of reference. The nature of the frame of reference serves to determine (in part) whether the object is related to increase or decrease of drive, and thus it also determines the nature of the attitude.[1]

### C. Review of the Literature

An individual's perception of his school experience and the subsequent attitudes that are formed are derived from numerous sources. The experiences one has and the roles one plays, the family and social class one is socialized in, the community where one resides, and the school one attends suggest some of the factors which influence the individual. As the remainder of this section suggests, not a great deal of research has been directed toward the specific problem of adolescents' perceptions of the school climate. There are, however, various studies which are both relevant and related to the problem. In order to introduce some order and clarity the review is organized as follows: (1) the so-called conflict between adolescence and society, (represented by the school); and, (2) the extent to which youngsters with different backgrounds and engaging in different experiences, activities, and programs are integrated into the social system of the school.

---

[1] *Ibid.*, p. 212.

The encounter between adolescents and the school is discussed in the writings of a number of individuals; and, range from the social criticism of Goodman[1] and Friedenberg[2] to the more empirically based observations of Waller[3], Gordon[4], and Coleman.[5] Bidwell has called attention to the possibility ". . . that the school bureaucracy and its staff confront a client society characterized by values and patterns of activity at best irrelevant to the service goals of the school, more likely opposed."[6] The forms and differing explanations of this conflict can be illustrated in a brief examination of the work of Friedenberg and Coleman.

In The Vanishing Adolescent and later in Coming of Age in America and Society's Children[7] Friedenberg appears to be concerned with the passing from modern life of a phase of adolescent development. In The Vanishing Adolescent he states:

---

[1] Paul Goodman, Growing Up Absurd (New York: Vintage Books, 1956).

[2] Friedenberg, op. cit. Also by the same author, Coming of Age in America (New York: Random House, Inc., 1965).

[3] Waller, op. cit.

[4] C. Wayne Gordon, The Social System of the High School (Glencoe, Illinois: The Free Press, 1957).

[5] James S. Coleman, The Adolescent Society (Glencoe, Illinois: The Free Press, 1961).

[6] Charles E. Bidwell, "The School as a Formal Organization," Handbook of Organizations, ed. James G. March (Chicago: Rand McNally and Company, 1965), p. 990.

[7] Carl Nordstrom, Edgar Z. Friedenberg, and Hilary A. Gold, Society's Children (New York: Random House, Inc., 1967).

> This task is self-definition. Adolescence is the period during which a young person learns who he is, and what he really feels. It is the time during which he differentiates himself from his culture, though on the culture's terms. It is the age at which, by becoming a person in his own right, he becomes capable of deeply felt relationships to other individuals perceived clearly as such.[1]

Because the school is a prime agency of adolescent socialization, much of Friedenberg's writing has dealt with the impact of this institution on the adolescent. He maintains that in executing its social processes -- Americanizing the young, sorting and selecting for the society, transmitting the cultural heritage, and functioning as an administrative and records center -- the school fails to provide and encourage the climate which is necessary for the establishment of self-esteem and the clarification of experience.[2]

Somewhat related to the above is the research of Cicourel and Kitsuse which shows the bureaucratization of both the counselor role and the talent hunt in the secondary school and the implications of this for the student.[1] There is also Corwin's contention that the high school is becoming a talent farm which may be at odds with the interests and concents of adolescents.[2] Implicit in Friedenberg's analysis is the viewpoint that the school functions as a quasi-total institution bent on managing the identity of its clients.[3] What this leads to are not adolescents, ". . . students whose primary concern was with the meaning of their own identity," but, instead, to conventionals, ". . . those who generally accept the institution and its conventions."[4] While the emphasis on conventionality may be seen as the responsibility and problem of the total society, the schools, in essence,

---

[1] The Vanishing Adolescent, p. 29. The Sturm and Drang aspect of adolescence of which self-definition appears to be a part may be more a function of cultural factors rather than developmental processes. See for example Ruth Benedict, Patterns of Culture (New York: The New American Library, 1960), pp. 36-40.

[2] The Vanishing Adolescent, Chaps. 3 and 4.

> are doing what needs to be done to keep the social system operating, but they are not teaching young men and women to understand and possibly control the society of which they are a part.[5]

---

[1] Aaron V. Cicourel and John I. Kutsuse, The Educational Decision-Makers (Indianapolis: The Bobbs-Merrill Company, Inc., 1963), Chaps. 4 and 5.

[2] Ronald G. Corwin, A Sociology of Education (New York: Appleton-Century-Crofts, 1965), Chap. 7.

[3] The concept of total institution appears in the writings of Erving Goffman. See his, Asylums (Garden City, N.Y.: Doubleday and Company, Inc., 1961).

[4] Nordstrom, op. cit., p. 19.

[5] Solon T. Kimball and James E. McClellan, Jr., Education and the New America (New York: Random House Inc., 1962), p. 13.

The efforts of the educational system are geared, for the most part, toward training young people " . . . to cooperate in the bureaucratic larger world."[1]

Friedenberg, thus, perceives the school as an oppressive institution which is concerned with transforming the young into inauthentic people and ". . . seeking insidiously to displace adolescent values with those favoring school-defined values."[2] This results in ressentiment. Compared to resentment, ". . . ressentiment is usually rationalized, covert, diffuse, and largely unconscious."[3] It involves

> . . . and extraordinary value transformation, a self-delusion whereby the individual afflicted makes a virtue of his predicament by substituting values consistent with it for those alien to it . . . he transforms his failure into a moralized success.[4]

Somewhat underemphasized in Friedenberg's work is the possible impact of the youth subculture on the school bureaucracy as well as its impact on the students themselves. The emergence, interests and inclinations of the adolescent society have been prominent in the literature.[5] It is at the secondary school level, even with its restrictive tracking policies, that this subculture comes into its own.[1] The student subculture, however, is not of one mind. Actually, reference may more properly be made to several sub-cultures. Thus Clark has written about the fun, academic, and delinquent subcultures.[2] Matza, on the other hand, has analyzed scrupulous youth, studious youth, sports and athletes, and rebellious youth.[3]

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[1] Nordstrom, op.cit., p. 132.

[2] Ibid., p. 135.

[3] Ibid., p. 8.

[4] Ibid., p. 13.

[5] See for example, Louis M. Smith and Paul F. Kleine, "The Adolescent and His Society" Review of Educational Research, XXXVI (October, 1966), pp. 424-436.

The existence of a youth subculture and its "setting-apart" from adult life were described in Coleman's Adolescent Society. Coleman noted that this separation was due not only to the changing conditions of modern life -- requiring more education and training but, more important, to the emergence and character of the secondary school system.

> This setting-apart of our children in schools -- which take on ever more functions, ever more 'extra-curricular activities' -- for an ever longer period of training has a singular impact on the child of high-school age. He is 'cut off' from the rest of society, forced inward toward his own age group, made to carry out his whole social life with others his own age. With his fellows, he comes to constitute a small society, one that has most of its

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[1] Talcott Parsons, "General Theory in Sociology," Sociology Today, eds. Robert K. Merton, Leonard Broom, and Leonard S. Cottrell, Jr., (New York: Harper Torch Books, 1965), pp. 32-33.

[2] Burton R. Clark, Educating the Expert Society (San Francisco: Chandler Publishing Company, 1962), Chap. 7.

[3] David Matza, "Position and Behavior Patterns of Youth," Handbook of Modern Sociology, ed. Robert E. L. Faris (Chicago: Rand McNally and Company, 1964), pp. 200-214.

> important interactions within itself, and maintains only a few threads of connection with the outside adult society.[1]

While a good number of the respondents in The Adolescent Society were concerned with scholarship and the "brilliant" student role,[2] the fact remains that the dominant orientation of youth was away from the academic goals of the institution toward extracurricular and "frivolous" pursuits, e.g., athletics. Indeed, the star attained greater visibility than the scholar not only among peers but also within the structure of the school and the community. Similar to Friedenberg, Coleman, as well as Gordon, depicts a student society which is alienated from the official expectations of the school. The student societies described by Coleman and Gordon, however, are not as submissive to the school functionaries as indicated by Friedenberg. Indeed, at times the students are quite capable of swinging the balance of power to their side.

The preceding might lead to the expectation that secondary school students would express feelings of resentment and dissatisfaction toward their school experiences. Remmers and Radler, in their analysis of the Purdue Opinion Panel of 1948, 1951, and 1953, however, note that "75 to 80 percent of America's high school students like school."[3] In a survey of high school students in the Milwaukee area, Boyer found that 84 percent of the respondents were satisfied with their school, although, this was more true for girls than for boys.[1] Although the results of these two studies may be considered tenuous they do illustrate two methodological problems. First, they appear to be a form of public opinion polling. The instruments may be extensive in terms of covering a number of areas but, they are not intensive to a specific problem area. Second, they treat the student society as a solidary group. That is, they fail to account for the background and experiential characteristics which may influence an individual's response. It is to these characteristics that the review is now directed.

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[1] Coleman, op. cit., p. 3.

[2] Matza, op. cit., pp. 202-204.

[3] H. H. Remmers and D. H. Radler, The American Teenager (Indianapolis: The Bobbs-Merrill Company, Inc., 1957), p. 119.

Over the years the concept of social class has played a dominant role in social science research on education. Although there is not always agreement on the precise meaning of this term and how it can best be measured, ". . . there is general consensus that differences in social class will account for some of the variation in human behavior."[2] This concept has been so pervasive as a causal or explanatory factor that it has led to the following admonition by Brookover and Gottlieb.

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[1] William H. Boyer, "A Survey of the Attitudes, Opinions, and Objectives of High School Students in the Milwaukee Area," Journal of Educational Sociology, XXXII (March, 1959), p. 345.

[2] W. B. Brookover and David Gottlieb, "Social Class and Education," Readings in the Social Psychology of Education, eds. W. W. Charters, Jr., and N. L. Gage (Boston: Allyn and Bacon, Inc., 1963), p. 3.

> Earlier studies have led to an over-emphasis on social class as a single factor which accounts for variation in attitudes, achievement, and other behavior relevant to the school system.[1]

The relevance of the above statement was recently demonstrated in a study by Richard Wolf.[2] He devised a method for measuring home environments and correlated this with measures of general intelligence and academic achievement. Wolf reported that the environmental measure accounted for three times as much of the variance in general intelligence as did his measure of social status. The environmental measure also accounted for two and one-half times as much of the variance in the total achievement battery as did the measure of social status.[3]

Because IQ is often used in decisions regarding educational placement and programs, Wolf also computed the multiple correlation between IQ and the over-all environmental rating for academic achievement with the total achievement battery score. Intelligence test scores alone account for 58 percent ($r = +.76$) of the amount of variance in academic achievement. Adding the measure of environment, the amount of variance accounted for in academic achievement rises to 76 percent ($R = +.87$).[4]

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[1] Ibid., p. 11.

[2] Richard Wolf, "The Measurement of Environments," Proceedings of the 1964 Invitational Conference on Testing Problems (Princeton, New Jersey: Educational Testing Service, 1965), pp. 93-106.

[3] Ibid., p. 100.

[4] Ibid., p. 102.

Despite these findings it does not appear that social class will cease in importance as an area of investigation. The fact that social class is operational in the educational setting is hardly startling. For American public schools, however, which have been oriented toward egalitarian ideals, (more so perhaps in this century), the realization has been rather slow and, sometimes, painful.

The manner in which social class does operate in the school has been documented in the well-known studies of Warner, Havighurst, and Loeb,[1] Hollingshead,[2] and, more recently, by Sexton.[3] In rejecting the class bias theme of the preceding research, Friedenberg has termed the schools' behavior toward lower class students as "genuine hostility."[4] Based on his own research as well as studies by Becker,[5] Cicourel and Kitsuse,[6] and Sexton,[7] Friedenberg further contends that this hostile environment prevails, not only for lower class students but, for upper class students as well.[1]

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[1] W. Lloyd Warner, Robert J. Havighurst and Martin B. Loeb, Who Shall Be Educated? (New York: Harper and Brothers Publishers, 1944).

[2] A. B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949).

[3] Patricia Sexton, Education and Income (New York: The Viking Press, 1961).

[4] Friedenberg, Coming of Age in America, p. 194.

[5] Howard S. Becker, "Social Class Variations in the Teacher-Pupil Relationship," Journal of Educational Sociology, XXV (April, 1952), pp. 451-465.

[6] Cicourel and Kitsuse, op. cit.

[7] Sexton, op. cit.

Other studies relating social class to achievement and IQ measures,[2] achievement motivation,[3] school attendance,[4] and educational and occupational aspirations[5] indicate that the lower status student does not fare as well as his middle and upper class counterparts. The trend shown in these and other studies may be somewhat equivocal.

For example, an important source of variation on the social class theme has been demonstrated in the studies of

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[1] Friedenberg, Coming of Age in America, pp. 201-205.

[2] Martin Deutsch, Minority Group and Class Status as Related to Social and Personality Factors in Scholastic Achievement, Monograph No. 2, The Society for Applied Anthropology, 1960; Vera P. John, "The Intellectual Development of Slum Children," American Journal of Orthopsychiatry, XXXIII (October, 1963), pp. 813-822; G. Lesser, G. Fifer, and D. Clark, Mental Abilities of Children in Different Social and Cultural Groups, Cooperative Research Project No. 1635, (New York: Hunter College, 1964).

[3] Bernard Rosen, "Race, Ethnicity, and the Achievement Syndrome," American Sociological Review, XXIV (February, 1959), pp. 47-60.

[4] James S. Davie, "Social Class Factors and School Attendance," Harvard Educational Review, XXIII (Summer 1953), pp. 175-185.

[5] Joseph H. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, XXIII (Summer 1953), pp. 186-203; LaMar T. Empey, "Social Class and Occupational Aspiration: A Comparison of Absolute and Relative Measurement," American Sociological Review, XXI (December, 1956), pp. 703-709; W. H. Sewell, A. O. Haller, and M. A. Straus, "Social Status and Educational and Occupational Aspiration," American Sociological Review, XXII (February, 1957), pp. 67-73.

Wilson,[1] Michael,[2] Krauss[3] and, more recently by Herriott and St. John[4] and Coleman.[5] Here the social characteristics -- class composition -- of the student body is seen as an important factor in influencing not only students' achievement and aspirations but also teacher and principal attitudes. The following observation from Wilson's research illustrates this:

> But within occupational strata . . . we see that attributes of the reference group - the norms of the school society - symmetrically modify attitudes: while 93 percent of the sons of professionals in the Group A (upper white collar) schools want to go to college, less than two-thirds of the professionals in the Group C (industrial) schools wish to do so; whereas only one-third of the sons of manual workers wish to go to college if they attend a predominantly working-class school, more than one-half of such sons so wish in the middle-class schools.[6]

An important contribution of this research is that it utilizes social class as a conditional variable. Thus, it not only underscores intra-class variations but also lends support to the majority group theory of leadership.[1] As Wilson has noted, ". . . the ethos of a school depends in part upon the dominant social character of its clientele . . . .[2] Still another discrepancy is shown by Reiss and Rhodes who reported that Negro, female, low IQ, and blue collar adolescents tend to value schooling more than their respective counterparts.[3] The distinction, however, between valuing schooling and liking or being satisfied with it is important.

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[1] A. B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," American Sociological Review, XXIV (December, 1959), pp. 836-845.

[2] John A. Michael, "High School Climates and Plans for Entering College," Public Opinion Quarterly, XXV (Winter 1961), pp. 585-595.

[3] Irving Krauss, "Sources of Educational Aspirations Among Working Class Youth," American Sociological Review, XXIX (December, 1964), pp. 867-879.

[4] Robert E. Herriott and Nancy Hoyt St. John, Social Class and the Urban School (New York: John Wiley and Sons, Inc., 1966).

[5] James S. Coleman, et. al., Equality of Educational Opportunity (Washington, D.C.: U. S. Government Printing Office, 1966).

[6] Wilson, op. cit., p. 839.

Specific empirical research in the general area of students' feelings toward their school has not been abundant. Wallin and Waldo called attention to this in relation to a study on school adjustment.[4] It might be noted at this time that whether one is investigating adjustment, interpersonal relations, attitudes, or perception may be a function of the researchers' operational definitions and interpretation of data. Many studies, although not claiming to investigate perception of school climate, do make use of attitude scales whose items are similar in content to those used in the present study.

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[1] Coleman, The Adolescent Society, pp. 65-110.

[2] Alan B. Wilson, "Social Stratification and Academic Achievement," Education in Depressed Areas, ed. A. Harry Passow, (New York: Bureau of Publications, Teachers College, Columbia University, 1963), p. 218.

[3] Albert J. Reiss, Jr. and Albert Louis Rhodes, "Are Educational Norms and Goals of Conforming, Truant and Delinquent Adolescents Influenced by Group Position in American Society?" Journal of Negro Education, XXVIII (Summer 1959), pp. 258-259. For an illustration of the discrepancies between the individual's aspirations and expectations and the realization of his educational goals, see Herbert H. Hyman, "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification," Class, Status, and Power, eds. R. Bendix and S. M. Lipsett, (Glencoe, Illinois: The Free Press, 1953), pp. 426-442.

[4] Paul Wallin and Leslie C. Waldo, Social Class Background of 8th Grade Pupils, Social Class Composition of Their Schools, Their Academic Aspirations and School Adjustment, Cooperative Research Project No. 1935, (California: Stanford University, 1964), p. 11.

Among the dimensions investigated by Wallin and Waldo was the school adjustment of eight grade pupils in relation to their social class. Adjustment was measured, in part, through several cumulative scales. They indicate ". . . that children of the higher social strata are happier in class, like school more, and tend to withdraw less from the school situation for they are more favorably oriented to it."[1] Wallin and Waldo also add a word of caution in that ". . . these social-class differences are not as great as is commonly assumed nor as great as those suggested in the current literature bearing on children's adjustment in school.[2]

Coster examined attitudes toward school of students from three income groups, (high, middle, and low), in nine Indiana high schools.[3] He constructed a twenty-seven item scale. However, instead of taking a mean attitude toward school score for each group, he analyzed each item separately for differences between groups. Only eight items showed a significant difference between high, middle, and low income students; and these items centered around what he chose to call interpersonal relationships with peers, teachers, and parents.[1] Coster's conclusion was that even though all three income groups accepted the educational program, not all students had been integrated into the social structure of the school.[2]

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[1] Ibid., p. 153.

[2] Ibid., p. 157.

[3] John K. Coster, "Attitudes Toward School of High School Pupils From Three Income Levels," Journal of Educational Psychology, XLIX (April, 1958), pp. 61-66.

The curriculum a student is enrolled in may be as valid an indication of educational aspiration as asking a student, "What do you plan to do after high school?" The course of study may also determine the student's chances for success and popularity in his school.

In _Elmtown's Youth_, Hollingshead found that,

> The high school curriculum is organized around three courses: college preparatory, general, and commercial. Enrollment in each course is related very significantly to class position; that is, each course acts either to attract or repel students in the different prestige classes.[3]

The statement of a senior girl enrolled in the college preparatory track at Elmtown High School crystalizes the internal prestige associated with this program.

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[1] _Ibid_., p. 63, Table 2.

[2] _Ibid_., p. 66.

[3] Hollingshead, _op_. _cit_., p. 168. Similar findings are reported by Sexton, _op. cit_., pp. 175-180. Also see, Joseph A. Kahl, _The American Class Structure_, (New York: Holt, Rinehart and Winston, 1957), p. 131.

> If you take a college preparatory course, you're better than those who take a general course. Those who take a general course are neither here nor there. If you take a commercial course, you don't rate. It's a funny thing, those who take college preparatory set themselves up as better than the other kids. Those that take college preparatory course run the place . . . . college preparatory kids get good grades and the others take what's left. The teachers get together and talk, and if you are not in college preparatory you haven't got a chance.[1]

In five of the ten high schools included in Coleman's Adolescent Society the leading crowd or elite consisted mainly of the college-bound students.[2] An important by-product of the curriculum stream a student follows is that it can act as a socializing agent -- teaching him a style of life and the behaviors that are associated with it.[3]

The present day American secondary school probably accords as much prominence to its extracurricular activities as it does to its scholastic program. Simpson and Simpson present a somewhat idealized rationale for this program but one with which most school-men could probably agree.

> Through its extracurricular activities program, it can enable its pupils to work willingly, in natural and intimate groups, toward goals which they themselves value highly, and in ways which develop such qualities as responsibility and the facility for making vital decisions.[4]

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[1] Ibid., pp. 169-170.

[2] James S. Coleman, Adolescents and the Schools (New York: Basic Books, Inc., Publishers, 1965), p. 19.

[3] Kahl, The American Class Structure, p. 135.

[4] Richard L. Simpson and Ida Simpson, "The School, The Peer Group, and Adolescent Development," Journal of Educational Sociology, XXXII (September, 1958), p. 40.

While the above rationale is laudable its' validity can be questioned, especially if one asks, "who participates in what activities and why?"

In Elmtown, lower status adolescents participate in fewer extracurricular activities than those from the higher strata.[1] Coster also reports that low income high school students tend to participate in less activities, although the types in which they participated were not known.[2] The potential importance of these programs is shown by Krauss. He lists high participation in extracurricular activities as a source of educational aspiration among working class youth.[3]

Gottlieb and Ten Houten[4] examined three high schools with different student populations and in different stages of racial change. Their data indicate that where the white or Negro students are in a minority in the school, they tend to enter into activities which are highly structured and which require little interpersonal contact, e.g. Band-

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[1] Hollingshead, op. cit., p. 201.

[2] John K. Coster, "Some Characteristics of High School Pupils From Three Income Groups," Journal of Educational Psychology, L (April, 1959), p. 61.

[3] Krauss, op. cit., p. 877.

[4] David Gottlieb and Warren Ten Houten, "Racial Composition and the Social Systems of Three High Schools," Journal of Marriage and the Family, XXVII (May, 1965), pp. 204-217.

Orchestra.[1] Does this same pattern exist on a class dimension?

Rosenberg's[2] research is also related to this problem. Among the variables that he correlated with self-esteem was club membership. In this study, an adolescent's self-esteem appeared to be related to the number and types of clubs joined. Students with low self-esteem tended to have low club membership.[3] Rosenberg also commented on why these students were attracted to certain clubs.

> Attention is directed to the fact that in such groups (Glee Club or Choir) there is probably less normal time or scope for spontaneous interaction. In addition, the individual member's contribution does not tend to be unique, but tends to be buried or integrated in the collective effort . . . . In such a group environment, people with low self-esteem appear to be more comfortable.[4]

Rosenberg's data indicated that adolescents from higher social classes were somewhat more likely to accept themselves than were those from the lower class. Class differences in self-esteem, however, were greater for boys than for girls.[5]

An important source of status discrepancy within the school has to do with sex. Coleman has called attention to the fact that within our society and also within the adolescent community there are more activities for boys than there are for girls.[1] Somewhat in contrast to this is Loeb's contention that ". . . young teen-age boys have few opportunities to develop that sense of identity which can serve them in forming an adequate and appropriate set of adult masculine roles."[2] Similarly, Goodman claims that growing up in American society is more absurd for 'young men and boys' than for girls.[3] Even assuming that within the school there are more outlets to enhance the status of boys, they do not become involved in as many activities as girls.[4]

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[1] *Ibid.*, p. 207, Table 4.

[2] Morris Rosenberg, *Society and the Adolescent Self-Image* (Princeton, New Jersey: Princeton University Press, 1965).

[3] *Ibid.*, p. 194, Table 2.

[4] *Ibid.*, p. 195.

[5] *Ibid.*, pp. 40-41.

When other comparisons are made, girls have a higher level of academic performance than boys;[5] controls (punishment) in school fall more heavily upon boys;[6] and boys tend to have more school adjustment problems.[7] Several explanations have been proposed to account for these findings, which include: (1) greater pressures on males for academic success;[1] (2) predominance of female teachers in the school leading to the sanctioning of female modes of behavior;[2] and (3) boys' tendency to project the sources of their dissatisfaction to the world around them.[3]

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[1] James S. Coleman, "Academic Achievement and the Structure of Competition," Harvard Educational Review, XXIX (Fall 1959), p. 333.

[2] Martin B. Loeb, "Social Role and Sexual Identity in Adolescent Males: A Study of Culturally Provided Deprivation," Education and Culture, ed. George D. Spindler (New York: Holt, Rinehart and Winston, 1963), p. 284.

[3] Goodman, op. cit., p. 13.

[4] Hollingshead, op. cit., p. 202.

[5] David E. Lavin, The Prediction of Academic Performance (New York: Russell Sage Foundation, 1965), p. 130.

[6] Otto H. Dahlke, Values in Culture and Classroom (New York: Harper and Brothers, Publishers, 1958), p. 274.

[7] Ibid., p. 308.

In summary, the encounter between schools and students may be more real than imagined. The explanations and implications of this conflict are not quite clear. On the one hand it may be viewed as a "natural" developmental phase of American adolescents. On the other hand, it may be a consequence of age-segregation within an institution along with the response of youth toward the mechanisms which the institution develops to cope with them. Alone, these explanations are too general. Granted the existence of an encounter, this does not necessarily mean that all adolescents entertain negative feelings toward the school experience.

From some of the previous research it may appear that upper-status youngsters, in a college preparatory track, participating in several activities would manifest least resentment. However, perhaps this would be modified when a factor such as the class composition of a school is introduced into the analysis. While generalizations from existing research are possible, they lack the authority which additional empirical data would provide for.

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[1] Lavin, op. cit., p. 130.

[2] Ibid., pp. 130-131 and Dahlke, op. cit.,p. 308.

[3] Philip W. Jackson and Jacob W. Getzels, "Psychological Health and Classroom Functioning: A Study of Dissatisfaction With School Among Adolescents," Journal of Educational Psychology, L (December, 1959), pp. 299-300.

# CHAPTER II

# THE PROBLEM

## A. Context

American schools, for the most part, have neither adequately measured nor evaluated the affective outcomes of the educational experience.[1] Admittedly, this aspect of the educative process is susceptible to both professional and civic pressures; moreover, evaluation is technically difficult. Miles observes this in the following comments.

> Since stated goals for schools are vague, multiple, conflicting, emotionally laden -- and constitute changes in persons which occur slowly and over an extended period of time -- most schools experience a good deal of difficulty in evaluating outcomes in any systematic way. Measures of socialization outcomes, other than teacher marks for classroom behavior (if they are given) are practically non-existant . . . .[2]

Brim's[3] analysis of the issues involved in criticisms of intelligence tests along with their sources would seem to be applicable here. He has called attention to the fact that:

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[1] cf., H. H. Remmers, Introduction to Opinion and Attitude Measurement (New York: Harper and Brothers, Publishers, 1954), Chap. 12.

[2] Matthew B. Miles, "Some Properties of Schools as Social Systems," Change in School Systems, ed. Goodwin Watson, (Washington, D.C.: National Training Laboratories, Cooperative Project for Educational Development, 1967), p. 7.

[3] Orville G. Brim, Jr., "American Attitudes Toward Intelligence Tests," American Psychologist, XX (February, 1965), pp. 125-130.

"Testing does not occur in isolation; there is always a social context. Test scores have a social meaning.[1] But, what is perhaps a more plausible explanation is that it may indicate an ". . . organizational defense against the conflicts and problems that would be inevitably laid bare if systematic evaluation were to be carried out."[2]

This latter observation might also provide a partial explanation as to the insufficient research literature. Since schools are responsible to the general public, it is probably assumed that they operate as open systems. It is quite possible, however, that within specified areas, such as affect, they function as closed systems.[3]

There is a need for research on this problem which could, presumably, add to our existing knowledge of schools and students. This, however, is not the only rationale for the present study.

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[1] Ibid., p. 130.

[2] Miles, op.cit., p. 8.

[3] The terms open and closed systems appear in the literature on system theory, although, the analogy here may not be completely accurate. As discussed by Griffiths, "Systems may be open or closed. An open system is related to and makes exchanges with its environment, while a closed system is not related to and does not make exchanges with its environment. Further, a closed system is characterized by an increase in entropy, while open systems tend toward a steady state." Daniel E. Griffiths, "Administrative Theory and Change in Organizations," Innovation in Education, ed. Matthew B. Miles, (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 429.

Schools, as public institutions, are called upon to assume various roles and perform various services. But in their relationships with their clients they differ in two very significant ways from other types of service organizations. First of all, they exhibit the characteristics of what Carlson has called "domesticated organizations."[1] Essentially, this type of service organization cannot select its clients. For that matter, ". . . the clients are not free to accept or reject the service -- the clients of these organizations must accept the service."[2] A second but closely related difference is that of the school literally taking of the client (student) into the service of the organization. Parsons has referred to this as a pattern " . . . where the recipient of the service becomes an operative member of the service-producing organization."[3]

In other types of organizations it is not uncommon to consult the client or consumer about the service or product. This practice rarely occurs in American education. Not only is there a tendency to ignore the student as a source of evaluation but he is often made responsible for aspects of the school program which do not succeed. There is little effort made to question the institution. This problem is as real today as when Hollingshead was studying Elmtown.

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[1] Richard O. Carlson, "Barriers to Change in Public Schools," Change Processes in the Public Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1965).

[2] Ibid., p. 6.

[3] Talcott Parsons, "Suggestions for a Sociological Approach to the Theory of Organizations," Complex Organizations, ed. Amitai Etzioni, (New York: Holt, Rinehart and Winston, 1962), p. 39.

> Training adolescents to be 'good citizens' is the professed objective of all institutional functionaries. However, in the administration of their offices emphasis is placed on the institutional program rather than on the effect it has on the adolescents subjected to it. Little effort is made to determine whether or not the program presented is doing what it is presumed to do. The assumption followed by the adults in charge is that the program is good because it represents established beliefs and practices. If the adolescent does not accept the program, he is at fault, not the institution.[1]

## B. Statement of the Problem

The purpose of the study is to investigate student perception of the secondary school climate and to determine whether relationships exist between this perception and selected characteristics of the students.

## C. Research Questions

The questions that will be investigated in the study are presented here in their simplest form. No attempt is made at the present to generate questions which would involve, for example, the interaction of two independent variables on a criterion variable.

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[1] A. B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949), p. 155. Schools essentially serve two client groups, the students and their parents. It is with the former group that this study is concerned. Even with the latter group, however, there is a tendency to fix blame in the inadequacy of the family rather than in the school.

1. Is there a relationship between students' social class and their perception of school climate?

2. Do male and female students differ in their perceptions of school climate?

3. Is there a relationship between students' course of study and perception of school climate?

4. Is there a relationship between the number of extracurricular activities students are participating in and their perception of school climate?

5. Do students who have participated in different types of extracurricular activities differ in their perception of school climate?

6. Do students at different grade levels differ in their perception of school climate?

7. Is there a relationship between the location of a school and student perception of school climate?

8. Is there a relationship between the social class composition of a school and student perception of school climate?

9. Is there a relationship between students' plans after high school and perception of school climate?

In order to answer the preceding research questions they are restated in the form of statistical or null hypotheses.

1. There is no relationship between perceived school climate and students' social class.

2. There is no relationship between perceived school climate and students' sex.

3. There is no relationship between perceived school climate and students' course of study.

4. There is no relationship between perceived school climate and the number of extracurricular activities students are participating in.

5. There is no relationship between perceived school climate and the types of extracurricular activities students have participated in.

6. There is no relationship between perceived school climate and students' grade level.

7. There is no relationship between perceived school climate and the school location.

8. There is no relationship between perceived school climate and school social class composition.

9. There is no relationship between perceived school climate and the after high school plans of students.

# CHAPTER III

# PROCEDURES

## A. The Sample

It should be noted, at this time, that the present study constitutes, in effect, a secondary analysis of data which had been collected for an on-going research project at the University of Pittsburgh, Learning Research and Development Center.[1] Four school districts located in the counties of Alleghany, Westmoreland and Beaver in the Pittsburgh, Pennsylvania metropolitan area were asked and, subsequently, assented to participate in the research project. The districts represented a suburban, industrial-suburban, semi-rural, and small city community.

The sample consisted of all of the students in four junior and three senior public high schools who were in attendance on the day that a questionnaire was administered. The questionnaire, known as the University of Pittsburgh Teenage Survey, was administered to the students under standardized conditions, by homeroom teachers in late

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[1] The principal investigator of this research is Edward A. Suchman, and is entitled, The Relationship Between Poverty and Educational Deprivation, Cooperative Research Project OEC-1-6-061254-0809.

December, 1965 and early January, 1966. For all schools the administration occurred toward the end of the first term.

Questionnaires were filled out by 5850 students. Of this number 379 were discarded from the present study because of incomplete information or missing data on the school climate items. This amounted to 7 percent of the total sample and reduced the analysis sample to an N of 5471. Hereafter, the term sample refers to the N of 5471. Table 1 represents a summary of some of the more salient characteristics for each school and for the total sample.

## TABLE 1

## SELECTED CHARACTERISTICS OF SCHOOLS PARTICIPATING IN SCHOOL CLIMATE STUDY

| County | Beaver | Alleghany | Alleghany | Alleghany |
|---|---|---|---|---|
| Location | Small City | Suburban | Suburban | Industrial Suburban |
| Type | Jr. H.S. | Jr. H.S. | Sr. H.S. | Jr. H.S. |
| Sample Size | 686 | 724 | 1482 | 391 |
| Sex | | | | |
| Male | 48% (328) | 52% (375) | 51% (761) | 53% (209) |
| Female | 52% (358) | 48% (349) | 49% (721) | 47% (182) |
| Social Class | | | | |
| I | 6% ( 40) | 18% (131) | 13% (194) | 4% ( 16) |
| II | 8% ( 54) | 31% (221) | 29% (422) | 8% ( 33) |
| III | 17% (116) | 21% (155) | 26% (381) | 13% ( 50) |
| IV | 35% (239) | 22% (157) | 24% (360) | 35% (135) |
| V | 30% (208) | 6% ( 45) | 7% (106) | 37% (146) |
| No Response | 4% ( 29) | 2% ( 15) | 1% ( 19) | 3% ( 11) |
| Class Composition of School | Working Class | Middle Class | Middle Class | Working Class |
| Course of Study | | | | |
| General | 32% (217) | 30% (216) | 14% (207) | 26% (101) |
| Vocational | 6% ( 41) | 6% ( 40) | 2% ( 27) | 9% ( 37) |
| College Prep. | 38% (258) | 41% (295) | 59% (870) | 41% (159) |
| Commercial | 11% ( 79) | 13% ( 97( | 19% (280) | 16% ( 61) |
| Other | 4% ( 31) | 2% ( 17) | 0% ( 7) | 3% ( 14) |
| No Response | 9% ( 60) | 8% ( 59) | 6% ( 91) | 5% ( 19) |
| After H.S. Plans | | | | |
| College-Jr.Coll. | 54% (367) | 60% (431) | 58% (863) | 55% (213) |
| Voc.-Tech.Train. | 5% ( 34) | 8% ( 57) | 11% (159) | 11% ( 44) |
| Work | 11% ( 74) | 6% ( 45) | 12% (173) | 7% ( 28) |
| Military | 7% ( 50) | 6% ( 46) | 7% (104) | 14% ( 53) |
| Don't Know | 17% (120) | 13% ( 93) | 6% ( 86) | 13% ( 52) |
| No Response | 6% ( 41) | 7% ( 52) | 6% ( 97) | 0% ( 1) |

TABLE 1 Continued

| County | Alleghany | Westmoreland | Westmoreland | Total |
|---|---|---|---|---|
| Location | Industrial Suburban | Semi-Rural | Semi-Rural | |
| Type | Sr. H.S. | Jr. H.S. | Sr. H.S. | |
| Sample Size | 934 | 458 | 796 | 5471 |
| Sex | | | | |
| Male | 51% (479) | 51% (232) | 45% (360) | 50% (2727) |
| Female | 49% (455) | 49% (226) | 55% (436) | 50% (2744) |
| Social Class | | | | |
| I | 6% ( 55) | 4% ( 17) | 2% ( 19) | 9% ( 472) |
| II | 11% (100) | 6% ( 29) | 8% ( 63) | 17% ( 922) |
| III | 18% (167) | 12% ( 53) | 14% (108) | 19% (1030) |
| IV | 31% (293) | 39% (178) | 37% (294) | 30% (1656) |
| V | 31% (291) | 38% (174) | 36% (290) | 23% (1260) |
| No Response | 3% ( 28) | 1% ( 7) | 3% ( 22) | 2% ( 131) |
| Class Composition of School | Working Class | Working Class | Working Class | |
| Course of Study | | | | |
| General | 12% (110) | 17% ( 80) | 17% (135) | 18% ( 976) |
| Vocational | 10% ( 93) | 14% ( 62) | 5% ( 41) | 6% ( 341) |
| College Prep. | 52% (493) | 35% (162) | 52% (415) | 50% (2742) |
| Commercial | 14% (131) | 25% (115) | 20% (159) | 17% ( 922) |
| Other | 1% ( 7) | 3% ( 13) | 1% ( 4) | 2% ( 93) |
| No Response | 11% (100) | 6% ( 26) | 5% ( 42) | 7% ( 397) |
| After H.S. Plans | | | | |
| College-Jr.Coll. | 51% (475) | 38% (171) | 42% (332) | 52% (2852) |
| Voc.-Tech.Train. | 22% (202) | 13% ( 60) | 15% (118) | 12% ( 674) |
| Work | 10% ( 96) | 18% ( 83) | 22% (177) | 13% ( 676) |
| Military | 7% ( 67) | 10% ( 47) | 9% ( 74) | 8% ( 441) |
| Don't Know | 9% ( 85) | 21% ( 96) | 11% ( 89) | 11% ( 621) |
| No Response | 1% ( 9) | 0% ( 1) | 1% ( 6) | 4% ( 207) |

## B. The Instrument

The instrument utilized for the study was a questionnaire, the University of Pittsburgh Teenage Survey. As previously noted, the instrument was constructed for specific research purposes and was not actually designed for the present study. This writer had worked on the development of the questionnaire and he has been closely associated with the larger research project. However, the bulk of the questionnaire construction occurred prior to the inception of the present study.

During the spring and summer of 1965 an extensive form of the questionnaire was pretested. The item selection sample consisted of 125 adolescents who were attending junior or senior high school in the city of Pittsburgh. In terms of social and economic characteristics and school programs enrolled in the sample was heterogeneous.

All of the items included in the final instrument, aside from those dealing with background characteristics of the respondent, showed a significant relationship at the .05 level of confidence with either poverty status or educational alienation or both. At the time that the pretest analysis was made poverty status was defined in terms of those items which asked about family income, social class, and family economic condition. Educational alienation was defined by those items asking about the importance of doing well in school, whether the student liked school, and if the student felt like part of the school he was attending.

The final questionnaire consisted of two forms, both of which were to be completed by the respondent. Generally, it attempts to measure student background characteristics, attitudes, values, problems, interests, aspirations, and perceptions of school and family.

After the research problem of the present study had been delineated, specific items within the questionnaire were selected for their relevance to the study. With one exception, all of the information came from Form A of the questionnaire. The items selected were regarded as quantitative indices in and of themselves and serve as the measures in the study. Following is a discussion of these measures including operational definitions.

Perception of school climate. -- School climate, as defined here, refers to the manner in which junior and senior high school students perceive their peers, teachers, and the institution itself. Included in this latter category is the students view of school and programs. More specifically, the concept pertains to whether the respondents perceive the school environment as being understanding -- in a social-psychological rather than an intellectual sense -- that is, in terms of their own needs via their teachers; as being acceptant in terms of their institutional peers; and realistic in terms of their own educational values and the institutional program. This concept is further defined by those items which constitute the School Climate Scale as shown in Table 2.

The School Climate Scale (SCS) was derived in the following manner: several individuals in education and related fields were presented with the definition of school climate and an accompanying list of items from the questionnaire. They were asked to read the definition and then select all of those items which they felt were appropriate to the definition. Only those items for which there was complete consensus were included in the scale.

In order to measure this concept, an attitude scale was utilized. Newcomb states that:

> . . . the purpose of an attitude scale is to _assign to an individual a numerical value_ somewhere between the two extremes of maximum favoring of something and maximum disfavoring of it . . . . Scaling methods are designed to tell us _just how_ favored a person's attitudes are, _just how_ intensely and _just how_ consistently he holds them, _just how_ widely he applies them, and so on.[1]

While there are several types of attitude scales, the method that is used in this study is the one developed by Likert, also known as summated rating scales.[2] With this method, all items are assumed to be equivalent in attitude value. "This means that there is no scale of items, as such. One item is the same as any other item in attitude value."[3]

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[1] Theodore M. Newcomb, _Social Psychology_ (New York: Holt, Rinehart and Winston, 1950), p. 155.

[2] Rensis Likert, "A Technique for the Measurement of Attitudes," _Archives of Psychology_, No. 140, 1932, pp. 1-55.

[3] Fred N. Kerlinger, _Foundations of Behavioral Research_, (New York: Holt, Rinehart and Winston, 1964), p. 484.

## TABLE 2

### ITEMS USED IN SCHOOL CLIMATE SCALE

| Item |
|---|
| I seem to accomplish very little compared to the amount of time I spend studying. SA, A, U, D, SD.[a] |
| This school is doing its best to give us a good education. SA, A, U, D, SD. |
| Teachers are too interested in their success to care about the needs of students. SA, A, U, D, SD. |
| If I have a complaint to make, I feel free to talk to the teachers. SA, A, U, D, SD. |
| Students at this school are very friendly. SA, A, U, D. SD. |
| Teachers expect too much work from us at school. SA, A, U, D. SD. |
| My classmates are glad to have me as a member of their school. SA, A, U, D, SD. |
| I really feel like part of this school. SA, A, U, D. SD. |
| Most teachers are friendly and can be easily approached. SA, A, U, D, SD. |
| School is often dull and monotonous. SA, A, U, D, SD. |

[a] Respondents marked their answers as: strongly agree, agree, undecided, disagree, strongly disagree.

TABLE 2 Continued

| Item |
|---|
| Teachers at this school are really interested in the welfare of the students. SA, A, U, D, SD. |
| Our schools do a poor job of preparing young people for life. SA, A, U, D, SD. |
| Education helps a person to use his leisure time to better advantage. SA, A, U, D, SD. |
| A high school education is worth all the time and effort it requires. SA, A, U, D, SD. |
| A person is foolish to keep on going to school if he can get a job. SA, A, U, D, SD. |
| Most students are bored with school. SA, A, U, D, SD. |
| You know teenagers have all sorts of ideas about school. Some like going to school and some don't. How about you? Do you. . .[b] |

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[b] Respondents marked this question as: like school a lot, like school fairly well, don't care one way or the other, dislike school, dislike school very much.

Each item has a score of its own and this is dependent on the number of response categories. In the School Climate Scale there are sixteen items, each having five options. The score for each item ranges from one (strongly agree) through five (strongly disagree). The maximum possible score that an individual can attain on this scale is eighty (indicating negative attitude) and the minimum possible score is sixteen (indicating positive attitude). The higher the score the less positive the attitude or perception.

From the foregoing discussion it can be seen that individuals rather than items are scaled. This ranking occurs by either taking the sum or the average of the individual's responses. A further point as noted by Newcomb is that,

> . . . the same score might be received by different individuals who agree with none of the same items . . . . A Likert scale position is thus influenced by the number, or range, of favorable and unfavorable responses, by the consistency of favorable or unfavorable responses, and by their intensity.[1]

He continues:

> There is no 'absolute' meaning to a Likert score; its meaning lies principally in its position relative to other people's scores.[2]

While a low score on the School Climate Scale represents a positive attitude and a high score a negative attitude, a score cannot be interpreted as indicating a good or bad, or a desirable or undesirable quality attributable to the individual. Rather, it represents the individual's evaluations of the object, (in this case, the schools' climate), based on the experiences he has had.

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[1] Newcomb, *op. cit.*, p. 172.

[2] *Ibid.*, p. 173.

The SCS is measuring a general evaluation of the environment. Within this environment there may be several factors, for example, teachers, students, and programs. Instead of determining how the student evaluates each of these sub-categories, the SCS is looking at the totality. Thus, the scale may be uni-dimensional for the general school environment but not for specific aspects of the environment.

Social class.-- Social class, generally, is a means of differentiating the population of a society. More specifically, it is a position or rank that is achieved by and ascribed to individuals or family units in society. For the school-going adolescent in American society social class takes the form of ascription based on the characteristics of their parents.

Brookover and Gottlieb have noted that "There is no universally accepted method of identifying the social class of a person or family."[1] However, it does appear that some measures or criteria find greater use than others. Thus, Hollingshead's Two Factor Index of Social Position,[2] which is the measure of social class utilized in the present study,[1] remains one of the multiple indices of social status frequently used or referred to.[2] Its purpose is to identify youngsters from ". . . groups of families occupying roughly the same position in the social hierarchy and presumed to have a common way of life, standards of behavior, values, etc. . . ."[3]

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[1] Wilbur B. Brookover and David Gottlieb, A Sociology of Education (New York: American Book Company, 1964), p. 155.

[2] A.B. Hollingshead, Two Factor Index of Social Position (New Haven, Connecticut: By the author, 1957).

In developing the Index of Social Position (ISP) Hollingshead proceeded under three assumptions:

> . . . (1) the existence of a status structure in the society; (2) positions in this structure are determined mainly by a few commonly accepted symbolic characteristics; and (3) the characteristics symbolic of status may be scaled and combined by the use of statistical procedures . . . .[4]

Two factors, occupation and education, are utilized in determining an individual's or family's social position. The inclusion of an education factor has been called a "definite advantage" because it ". . . is both highly accessible to measurement and . . . one of the most predictive single variables used in the field."[5] Each factor is assigned a scale score which is then weighted and summed to form the

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[1] Appendix, Items 11, 12, and 14.

[2] Kaare Svalastoga, "Social Differentiation," *Handbook of Modern Sociology*, ed. Robert E. L. Faris, (Chicago: Rand McNally and Company, 1964), p. 540.

[3] Paul Wallin and Leslie C. Waldo, *Social Class Background of 8th Grade Pupils, Social Class Composition of Their Schools, Their Academic Aspirations and School Adjustment*, Cooperative Research Project No. 1935, (California: Stanford University, 1964), p. 57.

[4] Hollingshead, *op. cit.*, p. 2.

[5] Svalastoga, *op. cit.*, p. 541.

ISP score.[1] The ISP yields the following five social class groupings: I Upper Class, II Upper-Middle Class, III Lower-Middle Class, IV Upper-Lower Class, and V Lower-Lower Class.

The occupation scale is,

> . . . premised upon the assumption that occupations have different values attached to them by the members of our society. The hierarchy ranges from the low evaluation of unskilled physical labor toward the more prestigeful use of skill, through the creative talents of ideas, and the manipulation of men. [2]

In discussing the ISP, Hollingshead notes the need for ". . . the precise occupational role the head of the household performs in the economy."[3] In the present study, this procedure was modified. Instead of asking for the precise occupational role, the respondents were presented with a list of nine broad occupational classifications. They were then asked to mark the one which describes the work of the head of the household. These occupational classifications were then assigned scaled scores which approximate the categories in the ISP.

The second factor, education, ". . . is premised upon the assumption that men and women who possess similar educations will tend to have similar tastes and similar attitudes, and they will also tend to exhibit similar behavior patterns."[4]

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[1] Occupation is assigned a weight of seven (7) and education has a weight of three (3).

[2] Hollingshead, op. cit., p. 8.

[3] Ibid., p. 2.

[4] Ibid., p. 9.

The ISP educational scale is divided into seven positions; however, in the present study the scale was divided into six rather than seven positions. This has been done previously without apparently lessening the effectiveness of the scale.[1]

The modifications in the occupation and education scale described above did not yield a range of summated ISP scores similar to that described by Hollingshead. Also, the cutting points suggested, but not required, by Hollingshead for ranking one's social position appeared to be under-estimating the proportion of respondents for class I and over-estimating the number in class V. This last observation was based on data available from the 1960 U. S. Census of the Pittsburgh metropolitan area and subjective impressions of the population characteristics for the several school districts.

The above disclosures necessitated a revision of the cutting points for the summated ISP scores. The cutting points thus used for the ISP scores were as follows: 11-19, class I; 20-37, class II; 38-51, class III; 52-65, class IV; and 66-77, class V. In order to insure the validity of the new rankings, coefficients of correlation were computed between the revised ISP rank and the occupation and education scores. The results are shown in Table 3.

While a high relationship between occupation and the

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[1] Wallin and Waldo, op. cit., p. 59.

TABLE 3

INTERCORRELATIONS AMONG SOCIAL
BACKGROUND ITEMS AND
REVISED ISP RANK

| Variable | Variable[a] | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | -- | | | | | |
| 2 | .560 | -- | | | | |
| 3 | .596 | .421 | -- | | | |
| 4 | -.271 | -.233 | -.263 | -- | | |
| 5 | .339 | .288 | .340 | -.417 | -- | |
| 6 | .779 | .507 | .928 | -.294 | .368 | -- |

[a] $V_1$= father's education, $V_2$= mother's education, $V_3$= occupation of head of household, $V_4$= estimate of family's financial condition, $V_5$= estimate of family's social class, $V_6$= revised ISP rank.

ISP was not unexpected,[1] the magnitude of the correlation shown in Table 2, $r_{36} = .928$, is quite substantial and would seem to indicate a dependable relationship. Also, of importance is the marked relationship between father's education and the revised ISP, $r_{16} = .779$. These results, then, were encouraging in regard to using the revised ISP rank.

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[1] The dominance of the occupation factor has been noted by Svalastoga, *op. cit.*, p. 541.

_Extracurricular activities_. -- Extracurricular activities consist of programs which the students participate in but control and supervision of these activities is retained by the school. Following Gottlieb and Ten Houten,[1] extracurricular activities in this study are categorized as those which are "highly" structured and require little interpersonal contact[2] and those which are not as structured but require more interpersonal contact.[3] While the activities which are listed in the questionnaire do not fully explore the range of possible activities open to students, they do represent some of the more popular and, perhaps, prestigious activities to be found in many schools. Still, the exclusion of subject matter and service club activities from the list can be considered as a serious limitation when examining the types of activities which students have participated in. The number of activities a student is participating in is determined through item 21 in the Appendix.

_Course of study_. -- The course of study is the program or track in which a student is enrolled or expects to enroll in senior high school. This is determined by the student's response to item 7 in the Appendix.

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[1] "Racial Composition and the Social Systems of Three High Schools," _Journal of Marriage and the Family_, Vol. XXVII (May, 1965), pp. 204-217.

[2] Appendix, Items 24 and 26.

[3] Appendix, Items 22, 23, 25, and 27.

School social class composition. -- This concept refers to the social class distribution of the student population of a school. Table 1 shows the social class distribution for each of the schools included in the study. A school is considered middle class when a majority, over fifty percent, of the student population are in classes I, II, and III. Likewise, a school is categorized as working class when over fifty percent of the student population are in classes IV and V.

School location. -- This concept refers to the community locale which the school district serves. Following are brief descriptions[1] of the four areas which have been identified. The suburban district is a consolidated one serving two suburban townships. These townships are predominantly middle class residential areas. The industrial-suburban district is also consolidated. It is made up largely of small, industrial communities but includes some residential suburban areas. The small, industrial city serves an urban community and some suburban and rural areas. Almost all of the junior high school pupils are drawn from the urban area. At the senior high school, approximately fifty percent of the students come from residential suburban and rural communities which pay tuition to the district.

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[1] The descriptions are based on data from Project SUCCEED, Learning Research and Development Center, University of Pittsburgh.

Of the four school districts, the small, industrial city had the highest percentage of Negroes. In 1965, eighteen percent of the junior high school student population was Negro. The semi-rural district, also consolidated, is centered in a small rural town. The district spreads out to small coal mining and industrial communities and includes an extensive area of small farms.

The fact that three out of the four districts are consolidated and that all of the districts are serving more than one community would appear to place some limitations on the generalizations that might be made about the location of a school.

Other variables. -- Student grade level and sex are noted in item 6 and 9, respectively of the Appendix. Data on after high school plans was obtained from Form B of the questionnaire. The item asked, "What do you plan to do after high school?" This was followed by five options of which the respondent was to indicate one. The options were: attend college or junior college, get further vocational or technical training, work, enter the military service, and I do not know.

## C. Statistical Techniques

The statistical technique selected to test the hypotheses was chi-square. Chi-square measures whether or not observed frequencies deviate significantly from frequencies expected by chance. Analysis of variance was initially considered, however, it was rejected because of the inavailability of computer programs to accommodate the sample size. Although a program for multivariate analysis of variance was available, it was also rejected because of the specification that cells be proportionate in the order of not more than 3:1. In some instances, this meant sacrificing a large portion of the sample and this was considered undesirable.

The effectiveness of the analysis of variance technique may be limited with non-experimental data. That is, with descriptive or survey designs which do not utilize randomization into equal or, at least, proportionate treatment groups factorial analysis of variance appears to be inapplicable.

There is some question about the appropriateness of tests of significance with survey or descriptive data, however, they are used in the study with the understanding that the present sample size greatly increases the probability of finding significant relationships. A related word of caution in interpreting statistical significance is provided by Sellitz:

> The fact that a result is statistically significant does not mean that it is socially or psychologically significant. Many statistically significant differences are trivial.[1]

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[1] Claire Sellitz, Marie Jahoda, Morton Deutsch, and Stuart W. Cooke, Research Methods in Social Relations (one-volume ed. rev.; New York: Holt, Rinehart and Winston, 1962), p. 422.

The level of confidence used throughout the study will be .05 or below.

# CHAPTER IV

## RESULTS OF THE STUDY

This chapter is concerned with reporting the results of the study in terms of the nine null hypotheses that have been previously formulated. Further interpretation of the data and some additional results appear in the following chapter.

The first hypothesis to be tested specified, "there is no relationship between perceived school climate and students' social class." The chi-square test proved to be significant indicating the existence of a relationship. This hypothesis is, therefore, rejected.

Upon inspection of Table 4 the between class differences do not appear to be very marked. The review of previous research seemed to indicate an expectation of greater negativism on the part of lower status youth. As shown in the table, however, a somewhat higher percentage of lower status youth tend to a more positive evaluation of school climate, (thirty-four percent of the class V's), than do youth in a higher class position, (twenty-nine percent of the class I respondents).

## TABLE 4

## PERCENT[a] DISTRIBUTION OF SCS SCORES FOR 5338[b] STUDENTS GROUPED ACCORDING TO INDEX OF SOCIAL POSITION

| Index of Social Position (ISP) | School Climate Scores[c] | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| I | 29 | 37 | 34 | 100( 472) |
| II | 28 | 35 | 37 | 100( 922) |
| III | 29 | 39 | 31 | 99[d](1029) |
| IV | 33 | 35 | 32 | 100(1655) |
| V | 34 | 35 | 31 | 100(1260) |

$X^2 = 23.1$ df = 6 $p < .001$

[a] While the data in the tables are presented in percentage form, chi-squares were computed from the frequencies.

[b] The sample size in this and the following tables do not always equal 5471 because of missing or incomplete data.

[c] Scores on the SCS were divided as follows: positive includes a score of 16 through a score of 32; neutral includes a score of 33 through a score of 39; and negative includes a score of 40 through a score of 76.

[d] Because of rounding percentages do not always equal 100.

The second hypothesis stating, "no relationship between perceived school climate and students' sex," is also rejected. The chi-square test was significant with boys being less positive and more negative in their perception than girls. Perception of school climate is not independent of sex among the students in this study. The results can be seen in Table 5.

TABLE 5

PERCENT DISTRIBUTION OF SCS SCORES FOR 5469
STUDENTS GROUPED ACCORDING TO SEX

| Sex | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Male | 28 | 36 | 36 | 100(2743) |
| Female | 34 | 37 | 29 | 100(2726) |

$X^2 = 32$  df= 3  $p < .001$

The third null hypothesis is also rejected. In Table 6, there is indicated a significant relationship between students' course of study and perceived school climate. The curriculum or track a student follows can be one way of viewing the existence of status differentials within the school setting. If one were to rank the status of the various courses of study at the secondary school level, the general program would probably rank lowest, next would come the vocational-commercial programs and highest status would be accorded to college preparatory. Assuming that these status discrepancies are conveyed and internalized by students, it can perhaps be understood why thirty-five percent of the college preparatory group manifest positive perceptions as compared to only thirty percent of the vocational-commercial and twenty-five percent of the general.

## TABLE 6

### PERCENT DISTRIBUTION OF SCS SCORES FOR 4979 STUDENTS GROUPED ACCORDING TO COURSE OF STUDY

| | School Climate Scores | | | |
|---|---|---|---|---|
| Course of Study | Positive | Neutral | Negative | Total |
| General | 25 | 37 | 38 | 100(1066) |
| Vocational-Commercial | 30 | 36 | 34 | 100(1262) |
| College Preparatory | 35 | 36 | 29 | 100(2651) |

$X^2 = 48.2$ df= 4 $p < .001$

The data in Tables 7 and 8 and the resultant chi-squares indicate rejection of the null hypotheses. There is a significant relationship between perceived school climate and both the number and types of extracurricular activities that students participate in.

For Table 7, the respondents were asked, "How many extracurricular activities in school are you taking part in this term?" The crucial distinction, as seen in the table, appears to be between those who were participating in activities and those who were not. Thus, for the students indicating no participation, forty-one percent of this group perceived the school climate negatively as compared to only twenty-nine percent of those students who were participating in one to two or three and more activities.

## TABLE 7

## PERCENT DISTRIBUTION OF SCS SCORES FOR 5469 STUDENTS GROUPED ACCORDING TO THE NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN THIS TERM

| Number of Activities | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| None | 24 | 35 | 41 | 100(1654) |
| 1 to 2 | 33 | 38 | 29 | 100(2302) |
| 3 or more | 37 | 34 | 29 | 100(1513) |

$X^2 = 95.1$ df = 4 $p < .001$

## TABLE 8

## PERCENT DISTRIBUTION OF SCS SCORES FOR 5469 STUDENTS GROUPED ACCORDING TO TYPES OF EXTRACURRICULAR ACTIVITIES PARTICIPATED IN SINCE ENTERING JUNIOR OR SENIOR HIGH SCHOOL

| Types of Extracurricular Activities | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Mixed | 38 | 35 | 27 | 100(1423) |
| Structured | 36 | 35 | 29 | 100( 784) |
| Unstructured | 30 | 36 | 33 | 99(1669) |
| None | 24 | 37 | 39 | 100(1593) |

$X^2 = 87.8$ df = 5 $p < .001$

The distinction between "those participating" and "those not participating" in extracurricular activities might also be applied to Table 8, with some qualification. Here the respondents were asked: "Since you entered high school or junior high school, have you ever belonged to the following organizations or engaged in the following kinds of activities?" This was followed by a list of activities. The list was not intended to be inclusive but rather to represent some activities which are both popular and prestigious and structured and unstructured. Again, it should be noted that this item, designed for other research, may not be completely suited for the purpose of this study. The results in both tables, especially for the "none" category, are strikingly similar.

For both junior high school and senior high school students there is a significant relationship between grade level and perceived school climate. The null hypothesis is rejected.

As shown in Tables 9 and 10 progression through the school system, from lowest grade (seventh) to highest grade (twelfth), is correlated with decreased positive perception of school climate or increased negative perception. This is the case whether one looks at junior and senior high schools separately or together, as a continuum from seventh grade through twelfth grade. Overall it would appear that junior high school students perceive the school climate more positively and less negatively than do senior high school students.

## TABLE 9

### PERCENT DISTRIBUTION OF SCS SCORES FOR 2258 STUDENTS GROUPED ACCORDING TO JUNIOR HIGH SCHOOL GRADE LEVEL

| Grade Level | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Seven | 43 | 36 | 21 | 100(640) |
| Eight | 37 | 38 | 25 | 100(744) |
| Nine | 35 | 37 | 28 | 100(874) |

$X^2 = 11.2$ df= 4 $p < .05$

## TABLE 10

### PERCENT DISTRIBUTION OF SCS SCORES FOR 3211 STUDENTS GROUPED ACCORDING TO SENIOR HIGH SCHOOL GRADE LEVEL

| Grade Level | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Ten | 30 | 36 | 34 | 100(1122) |
| Eleven | 26 | 34 | 40 | 100(1044) |
| Twelve | 24 | 35 | 41 | 100(1045) |

$X^2 = 13.3$ df= 4 $p < .01$

The hypothesis of "no relationship between perceived school climate and school location" is also rejected. The data in Table 11 indicate a significant relationship. For several reasons, to be discussed later, interpretation of these results are somewhat obscure. One is reminded of Sellitz' cautionary comment about results being statistically significant but neither socially nor psychologically significant.

TABLE 11

PERCENT DISTRIBUTION OF SCS SCORES FOR 5469 STUDENTS GROUPED ACCORDING TO LOCATION OF SCHOOL

| Location | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Suburban | 22 | 35 | 43 | 100(2204) |
| Industrial-Suburban | 31 | 40 | 28 | 99(1325) |
| Semi-Rural | 40 | 33 | 27 | 100(1254) |
| Small City | 43 | 35 | 21 | 100( 686) |

$X^2 = 240.6$ df= 5 $p < .001$

Of interest here is the fact that students in the suburban district manifest a less positive and more negative perception of school climate than the students in the other districts. While this finding may not be in accord with current impressions of suburban and/or middle class schools, it was noted in Table 4 that the upper status students perceive the school climate less positively than the lower status students. Since the suburban district is predominantly middle class, and as a matter of fact in terms of the social class composition of the school variable is the only one which could be so categorized, the possibility exists that social class is operating as a contaminating factor. Thus, social class of the students may supersede other attributes specific to a school because of its location.

Also, the small city district only included junior high school students. In comparing the results in Tables 9 and 10 it was seen that junior high school students perceive the school climate more positively. Thus, the addition of the senior high school students to the small city sample might possibly change the position of this district relative to the others.

The data in Table 12 also indicate a significant relationship between the social class composition of a school and perceived school climate. Students in working class schools perceive the school climate more positively and less negatively. Therefore, this null hypothesis is rejected. It would appear that these data lend further support for the results reported for social class and school location.

The last hypothesis states, "there is no relationship between perceived school climate and the after high school plans of students." The chi-square based on the data in Table 13 indicates a significant relationship. This hypothesis is rejected.

TABLE 12

PERCENT DISTRIBUTION OF SCS SCORES FOR 5469 STUDENTS GROUPED ACCORDING TO SOCIAL CLASS COMPOSITION OF SCHOOLS

| Social Class Composition | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| Working | 37 | 37 | 26 | 100(3264) |
| Middle | 22 | 35 | 42 | 99(2205) |

$X^2 = 197.4$ df = 3 $p < .001$

Students planning on post-secondary education manifest more positive perception of school climate than others. These results can also be related to those reported in section three of this chapter. There, a significant relationship was found to exist between perceived school climate and course of study, with college preparatory students indicating a more positive perception.

Also included in this table is the "don't know" option. This category seems especially relevant here. Given the emphasis on education as an avenue of social mobility and the role of the secondary school in the sorting and selecting process,[1] those students who"don't know" what they will be

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[1] See for example, Aaron Y. Cicourel and John I. Kitsuse, The Educational Decision-Makers (Indianapolis: The Bobbs-Merrill Company, Inc., 1963).

TABLE 13

PERCENT DISTRIBUTION OF SCS SCORES FOR 5262
STUDENTS GROUPED ACCORDING TO
AFTER HIGH SCHOOL PLANS

| After High School Plans | School Climate Scores | | | |
|---|---|---|---|---|
| | Positive | Neutral | Negative | Total |
| College-Jr. College | 38 | 36 | 26 | 100(2851) |
| Vocational-Technical Training | 28 | 39 | 33 | 100( 674) |
| Work | 23 | 35 | 42 | 100( 675) |
| Military | 23 | 32 | 45 | 100( 441) |
| Don't Know | 19 | 40 | 41 | 100( 621) |

$X^2 = 200.2$ df $= 6$ $p < .001$

doing after they complete high school may be described as being in a state of limbo within the social structure of the school. Thus, only nineteen percent of the students who choose "don't know" for after high school plans perceive the school climate positively.

This chapter has presented data related to the testing of nine null hypotheses. In all instances the hypotheses were rejected at or beyond the .05 level of confidence.

# CHAPTER V

# DISCUSSION

## A. Summary of the Study

This was a descriptive study exploring the relationship between several selected characteristics of secondary school students and their perception of school climate. The study utilized data that had been collected in conjunction with a research project, The Relationship Between Poverty and Educational Deprivation, at the University of Pittsburgh, Learning Research and Development Center. The data consisted of responses to a survey questionnaire, the University of Pittsburgh Teenage Survey, which was constructed for the specific research mentioned above. The questionnaire was filled out by 5471 junior and senior high school students who were enrolled in schools located in four counties of the Pittsburgh, Pennsylvania metropolitan area.

The present study was predicated upon the following: attitudes are an important part of the educational process; perception, in part, conditions attitude formation; this aspect of the school experience has not received sufficient empirical study; perceived school climate of secondary school students is a valid construct; and students, for various reasons, might not perceive the school climate similarly.

A review of the literature was undertaken organized around the supposed conflict between adolescents and schools and the extent to which students with different backgrounds and in different situations were integrated into the social system of the school. The review disclosed that a number of writers and researchers do perceive a real conflict between the concerns and values of adolescents and the goals and values of the school. It also appears that students are differentially integrated into the school social system and that the degree of integration may not be contingent on social class alone. Furthermore, the affective aspects of schooling do not appear to have been subject to the same intense empirical study as the cognitive.

Nine characteristics which have been utilized in research on education in other contexts and which, it was believed, might show a relationship to perceived school climate were selected as the independent variables. They were as follows: students' social class (as measured by Hollingshead's two factor index of social position), sex, course of study, number of extracurricular activities participating in, types of extracurricular activities participating in (structured v. unstructured), grade level, school location (rural-suburban-urban), social class composition of the school (middle class v. working class), and post high school plans.

The criterion variable, perception of school climate, was measured by a sixteen item Likert-type scale. Information on perceived school climate, along with the preceding nine characteristics, was obtained from the survey instrument referred to earlier. Perception of school climate was operationally defined in terms of the items which made up that scale. This concept refers to the peers, the teachers, and the program of the secondary school student. While perception of school climate may have several dimensions, the emphasis in the study was on how the students perceived the total gestalt.

Hypotheses of no relationship between perceived school climate and each of the nine characteristics were developed and tested by means of chi-square. For each hypothesis, the chi-square analysis indicated a significant relationship at or beyond the .05 level of confidence. The results were as follows:

a. There was a significant relationship between perceived school climate and students' social class. Lower status youth indicated more positive perception than did upper status youth.

b. There was a significant relationship between perceived school climate and students' sex. Boys perceived the school climate less positively than girls.

c. There was a significant relationship between perceived school climate and students' course of study. Students enrolled in the college preparatory track showed a more positive perception of school climate than students enrolled in vocational-commercial or general programs.

d. There was a significant relationship between perceived school climate and the number of extracurricular activities students were participating in. Students who did not participate in extracurricular activities perceived the school climate less positively and more negatively than students who did participate.

e. There was a significant relationship between perceived school climate and the types of extracurricular activities students participated in. Students that participated in mixed activities, (structured and unstructured), manifested a more positive and less negative perception of school climate. They were followed by students that participated in structured, unstructured, and no activities, in that order.

f. There was a significant relationship between perceived school climate and students' grade level. At both the junior high school and senior high school level entering students, seventh and tenth graders, held a more positive perception of school climate. As one moved from seventh grade through twelfth grade there was a decrease in positive and an increase in negative perception of school climate. Overall, junior high school students perceived the school climate more positively than did senior high school students.

g. There was a significant relationship between perceived school climate and location of the school. Secondary school students in a suburban middle class district held a less positive and more negative perception of the school climate.

h. There was a significant relationship between perceived school climate and the social class composition of schools. Students attending schools classified as predominantly working class perceived the school climate more positively than students attending schools classified as predominantly middle class.

i. There was a significant relationship between perceived school climate and the after high school plans of students. Students planning on some form of post-secondary education manifested a more positive perception of school climate than others.

## B. Conclusions

In several respects the present investigation lends further support to the earlier research of Warner, Havighurst, and Loeb, of Hollingshead, and of Sexton. Some of their findings indicated that within the social structure of the school the upper status student and the college-bound student reap the most benefits from the institution. Data collected as part of this study, but not reported in Chapter IV, show that the percentage of class I students enrolled or planning to enroll in a college preparatory program is more than two times that of class V students; that upper status students are involved in more extracurricular activities; and, that the percentage of college preparatory students participating in three or more extracurricular activities is more than that of the general and vocational-commercial students together. These findings are illustrated in Tables 14, 15, and 16.

TABLE 14

PERCENT DISTRIBUTION OF COURSE OF STUDY FOR 4867 STUDENTS GROUPED ACCORDING TO INDEX OF SOCIAL POSITION

| Index of Social Position | Course of Study | | | |
|---|---|---|---|---|
| | General | Vocational-Commercial | College Perparatory | Total |
| I | 11 | 7 | 82 | 100( 438) |
| II | 14 | 17 | 69 | 100( 849) |
| III | 19 | 23 | 58 | 100( 945) |
| IV | 23 | 30 | 47 | 100(1500) |
| V | 29 | 34 | 34 | 100(1135) |

$X^2 = 351.9$ df = 6 $p < .001$

## TABLE 15

## PERCENT DISTRIBUTION OF NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN THIS TERM FOR 5338 STUDENTS GROUPED ACCORDING TO INDEX OF SOCIAL POSITION

| Index of Social Position | Number of Activities | | | |
|---|---|---|---|---|
| | None | 1 or 2 | 3 or more | Total |
| I | 21 | 41 | 38 | 100( 472) |
| II | 26 | 40 | 34 | 100( 922) |
| III | 27 | 44 | 29 | 100(1029) |
| IV | 33 | 41 | 26 | 100(1655) |
| V | 34 | 44 | 22 | 100(1260) |

$X^2 = 83.8$ df= 6 $p < .001$

## TABLE 16

## PERCENT DISTRIBUTION OF NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN THIS TERM FOR 4979 STUDENTS GROUPED ACCORDING TO COURSE OF STUDY

| Course of Study | Number of Activities | | | |
|---|---|---|---|---|
| | None | 1 to 2 | 3 or more | Total |
| General | 48 | 41 | 11 | 100(1066) |
| Vocational-Commercial | 34 | 44 | 21 | 100(1262) |
| College Preparatory | 20 | 42 | 38 | 100(2651) |

$X^2 = 605.3$ df =4 $p < .001$

Furthermore, the relationship between social class and participation in extracurricular activities is maintained even when the social class composition of the school is taken into account. Thus, Table 17 shows that in working class as well as in middle class schools, upper status students still participate in more activities. This, of course, does not necessarily mean that public schools deliberately encourage some groups of students to participate more fully than others.

TABLE 17

PERCENT DISTRIBUTION OF NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN THIS TERM FOR 5340 STUDENTS GROUPED ACCORDING TO INDEX OF SOCIAL POSITION AND SOCIAL CLASS COMPOSITION OF SCHOOL

| | Middle Class School | | | | Working Class School | | | |
|---|---|---|---|---|---|---|---|---|
| | Social Position | | | | Social Position | | | |
| Number of Activities | I,II | III | IV | V | I,II | III | IV | V |
| None | 26 | 32 | 42 | 46 | 22 | 22 | 29 | 33 |
| 1 to 2 | 41 | 45 | 37 | 36 | 38 | 43 | 43 | 45 |
| 3 or more | 33 | 23 | 21 | 18 | 40 | 35 | 28 | 22 |
| Total | 100<br>(968) | 100<br>(536) | 100<br>(517) | 100<br>(151) | 100<br>(426) | 100<br>(494) | 100<br>(1139) | 100<br>(1109) |

$X^2 = 69.1$ df = 5 $p < .001$ $X^2 = 67.6$ df = 5 $p < .001$

However, all of the preceding would seem to indicate that within the social system of the secondary school the upper status student is in a more favorable and, perhaps, favored position. Given this conclusion, to what can be attributed the finding in the present study that upper class students perceive the school climate more negatively than lower class ones. There are several factors which may account for this.

First, there is Edgar Friedenberg's contention that the public school exhibits hostility toward upper class students.[1] If this is so, then it provides some basis for understanding the higher negative perception of school climate of this group. However, this hostility is also directed at the lower class group[2] and, yet, their perception of school climate is the most positive. Pursuing this line of reasoning via Friedenberg, it might be maintained that the lower class students are the most ressentient. Perhaps they are assuming a value pose, ". . . a self-delusion whereby the individual afflicted makes a virtue of his predicament by substituting values consistent with it for those alien to it."[3] Because school is essential to his life chances, the lower class student may accommodate to the hostility and may internalize somewhat positive feelings about the school. The position of the upper class student, however, allows him to be more independent and less accommodating. Because of such things as parental influence in the school and community and the option of attending private school, he may feel more free to react to the hostility in a critical manner.

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[1] Edgar Z. Friedenberg, Coming of Age in America (New York: Random House, 1965), pp. 201-205.

[2] Ibid., p. 194.

[3] Carl Nordstrom, Edgar Z. Friedenberg, and Hillary A. Gold, Society's Children (New York: Random House, 1967), p. 13.

A second and related explanation has to do with the extent to which students reflect the feelings of their parents. Upper status parents have closer contact with the school and are more articulate about its operation.[1] Cloward and Jones in a study on educational attitudes and participation of lower, working, and middle class adults in a large city report that:

> In general. . . middle-class respondents have the more negative opinion of the public schools. They are more likely to consider the public schools one of the major problems of the community, are less likely to feel that it is doing a good job, and are more likely to disagree with the assertion that teachers are really interested in their students.
>
> . . . it is possible that members of the middle-class have higher expectations of what the schools are supposed to accomplish, thus making their evaluation of the performance of the school more negative than that of members of the working and lower classes.[2]

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[1] Patricia Sexton, Education and Income (New York: The Viking Press, 1961), pp. 227-229.

[2] Richard A. Cloward and James A. Jones, "Social Class: Educational Attitudes and Participation," Education in Depressed Areas, ed. A. Harry Passow, (New York: Bureau of Publications, Teachers College, Columbia University, 1963), pp. 208-209.

If it can be assumed that the parents of upper status students in this study do in fact manifest such feelings and, furthermore, if the students do reflect their parents views, then this, also, might explain the more negative perception of school climate on the part of higher status youth. In regard to the present study, however, the above two explanations--hostility of the school and parent attitudes--must be considered conjectural as data on these phenomena are not available.

A third possibility is to determine, empirically, if the relationship between perceived school climate and social class is, in fact, a spurious one. This can be demonstrated by introducing one or more variables into the original relationship in order to see if the effect is to intensify, reduce, or eliminate it. Two variables which might have such an effect are sex of the student and school social class composition. The inclusion of these variables in the original relationship are shown in Tables 18, 19 and 20.

When each of these is considered separately, the following picture emerges. In Table 18, the original relationship between perceived school climate and social class is reduced; however, the relationship is somewhat stronger for girls than for boys. Lower class girls still perceive the school climate more positively than those in the upper class. For boys, those in classes I, IV, and V are most positive in their perception of school climate. This finding would appear to be in contrast to Friedenberg's hypothesis

## TABLE 18

## PERCENT DISTRIBUTION OF SCS SCORES FOR 5338 STUDENTS GROUPED ACCORDING TO SEX AND SOCIAL POSITION

| School Climate Scores | Males | | | | | |
|---|---|---|---|---|---|---|
| | Social Position | | | | | |
| | I | II | III | IV | V | Total |
| Positive | 31 | 24 | 25 | 30 | 32 | 28 |
| Neutral | 36 | 36 | 39 | 34 | 35 | 36 |
| Negative | 33 | 40 | 36 | 36 | 33 | 36 |
| Total | 100<br>(231) | 100<br>(446) | 100<br>(548) | 100<br>(841) | 100<br>(619) | 100<br>(2680) |

$X^2 = 15.6$ df $= 6$ $p < .05$

| School Climate Scores | Females | | | | | |
|---|---|---|---|---|---|---|
| | Social Position | | | | | |
| | I | II | III | IV | V | Total |
| Positive | 27 | 31 | 34 | 36 | 36 | 34 |
| Neutral | 38 | 35 | 40 | 37 | 35 | 37 |
| Negative | 35 | 34 | 26 | 27 | 29 | 29 |
| Total | 100<br>(241) | 100<br>(476) | 100<br>(482) | 100<br>(813) | 100<br>(646) | 100<br>(2658) |

$X^2 = 19.7$ df $= 6$ $p < .01$

referred to previously.

The inclusion of school social class composition in the initial relationship is shown in Table 19. In working class schools the relationship between perceived school climate and social class is eliminated. In middle class schools the relationship is reduced and the ordering is changed. Here upper status students perceive the school climate most positively. Of interest is the fact that slightly more than one-half of the class V students in middle class schools perceive the school climate negatively compared to slightly more than one-quarter of these students in working class schools.

The interaction of student sex and school social class composition, together, on the relationship between perceived school climate and social class can be seen in Table 20. With one exception the relationship is eliminated. For boys in middle class schools, the relationship is reduced with class V boys indicating the least positive perception of school climate. It may be of interest to note that class I boys in working class schools manifest the most positive perception of school climate than any group in both school contexts. In contrast to this, class I girls in working class schools are the least positive of girls in that particular context. Also, class V boys in middle class schools are the least positive and most negative in their perception of school climate than any other group.

## TABLE 19

### PERCENT DISTRIBUTION OF SCS SCORES FOR 5338 STUDENTS GROUPED ACCORDING TO CLASS COMPOSITION OF SCHOOL AND SOCIAL POSITION

| School Climate Scores | Middle Class | | | | | |
|---|---|---|---|---|---|---|
| | Social Position | | | | | |
| | I | II | III | IV | V | Total |
| Positive | 24 | 23 | 21 | 23 | 17 | 22 |
| Neutral | 37 | 35 | 39 | 33 | 29 | 36 |
| Negative | 39 | 42 | 40 | 44 | 54 | 42 |
| Total | 100<br>(325) | 100<br>(643) | 100<br>(536) | 100<br>(516) | 100<br>(151) | 100<br>(2171) |

$X^2 = 14.6$ df = 6 $p < .05$

| School Climate Scores | Working Class | | | | | |
|---|---|---|---|---|---|---|
| | Social Position | | | | | |
| | I | II | III | IV | V | Total |
| Positive | 40 | 38 | 38 | 37 | 36 | 37 |
| Neutral | 37 | 36 | 40 | 36 | 36 | 37 |
| Negative | 23 | 26 | 22 | 26 | 28 | 26 |
| Total | 100<br>(147) | 100<br>(279) | 100<br>(494) | 100<br>(1138) | 100<br>(1109) | 100<br>(3167) |

$X^2 = 5.4$ df= 6 p ns

# TABLE 20

PERCENT DISTRIBUTION OF SCS SCORES FOR 5338 STUDENTS GROUPED ACCORDING TO CLASS COMPOSITION OF SCHOOL, SEX, AND SOCIAL POSITION

| School Climate Scores | Middle Class | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Males | | | | | | Females | | | | | |
| | Social Position | | | | | | Social Position | | | | | |
| | I | II | III | IV | V | Total | I | II | III | IV | V | Total |
| Positive | 24 | 22 | 18 | 20 | 12 | 20 | 24 | 24 | 25 | 26 | 22 | 25 |
| Neutral | 35 | 34 | 38 | 32 | 28 | 34 | 39 | 36 | 40 | 35 | 29 | 36 |
| Negative | 40 | 44 | 44 | 48 | 60 | 45 | 37 | 40 | 34 | 38 | 48 | 38 |
| Total | 99<br>(160) | 100<br>(326) | 100<br>(304) | 100<br>(260) | 100<br>(75) | 99<br>(1125) | 100<br>(165) | 100<br>(317) | 99<br>(232) | 99<br>(256) | 99<br>(76) | 100<br>(1046) |

$X^2 = 13.3$ df = 6 $p < .05$

$X^2 = 6$ df = 6 p ns

TABLE 20 Continued

| School Climate Scores | Working Class | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Males | | | | | | Females | | | | | |
| | Social Position | | | | | | Social Position | | | | | |
| | I | II | III | IV | V | Total | I | II | III | IV | V | Total |
| Positive | 45 | 32 | 33 | 34 | 34 | 34 | 34 | 43 | 43 | 40 | 38 | 40 |
| Neutral | 39 | 38 | 40 | 34 | 36 | 36 | 36 | 33 | 39 | 38 | 36 | 36 |
| Negative | 16 | 29 | 26 | 31 | 29 | 29 | 30 | 24 | 18 | 22 | 26 | 23 |
| Total | 100<br>(71) | 99<br>(120) | 99<br>(244) | 99<br>(581) | 99<br>(531) | 99<br>(1555) | 100<br>(76) | 100<br>(159) | 100<br>(250) | 100<br>(557) | 100<br>(570) | 99<br>(1612) |

Males: $X^2 = 10.3$ df $= 6$ p ns

Females: $X^2 = 10.3$ df $= 6$ p ns

Perhaps a salient explanation for the preceding can be found in what Kahl has called "the web of interaction."[1] Research has indicated that interaction across social class lines tends to be limited. When this occurs in the case of marriage, for example, men marry down more often than they marry up. Kahl then asks, "Are women more class-conscious than men?"[2]

Hollingshead's research on Elmtown provides some insight into this, especially in respect to social class interaction and dating behavior.

> . . . a boy is approximately twice as willing to date a girl lower than himself in the prestige structure than a girl is willing to date a boy lower than herself. . . it is twice as hard for a boy to date above himself as it is for a girl to do so. Thus, a high school boy confines him dates to girls of his own class or to those of lower classes. The girls . . . have greater opportunities to associate with boys of higher prestige than themselves on an intimate, personal level.[3]

Assuming a possible relationship between the "web of interaction" and perceived school climate, there are several implications for the present study. Class I boys, although a district minority in working class schools, are not as restricted to their immediate social equals as are class I girls in the same school context. They can and possibly do interact among a wide range of students. Class I girls, perhaps because of anxiety over future status, maintain themselves as a minority restricted in their interactions and confined to their social equals. The school experience for boys in this social class can be a fuller and more rewarding one than for upper status girls. In middle class schools a different set of circumstances are operating. Here it is the class V boys who are the most isolated. There is no one below them in the class structure and they may find it quite difficult to interact with those who are above them. In some respects, class V boys in middle class schools are more confined in their interactions than any other group. This would not be true for the class V girls. According to the "web of interaction" they would have the opportunity to move above their class. This may help to explain why, in the middle class schools, the percentage of class V girls indicating positive perception of school climate is almost twice that of the class V boys.

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[1] Joseph A. Kahl, The American Class Structure (New York: Holt, Rinehart and Winston, 1957), Chap. V.

[2] Ibid., p. 136.

[3] A. B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949), P. 232.

The"web of interaction" explanation does not, of course, mitigate other factors. Thus lower status boys in a middle class environment may exhibit values, behaviors, and interests which are so disparate from the majority expectations that they become alienated from and rejected by the school society. A good deal of this, however, appears to contain an important implication for American education, especially, in respect to school desegregation--social class as well as racial. That is, where upper status students comprise the minority class group within a school they may be better able to cope with and overcome their minority position than would lower class students.

Although social class has been and continues to be an important "fact of life" in public education, what is sometimes lost sight of is that the consequences of social class can vary among schools and students. Indictments of American schools as middle class agencies which discriminate against those who deviate from the middle class norm may not be completely accurate. Data from this study show that in working class schools the perceived school climate of lower status students is not appreciably different than that of other students. Indeed, in a predominantly working class school the institution may represent a force of stability and order providing the students with a significant and meaningful experience. Others have called attention to the fact that the ethos of a school is influenced by the characteristics of the majority group of students.[1]

Some of the foregoing suggests limitations with social class _per se_ as an analytical concept. In some situations, a more productive endeavor would be to examine the interactive effects of social class with other variables. This study has demonstrated a relationship between social class and perceived school climate of secondary students; however, it has also shown that the relationship could be altered and, perhaps, made more understandable when other factors are considered.

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[1] James S. Coleman, _The Adolescent Society_ (Glencoe, Illinois: The Free Press, 1961), pp.65-110.

The manifest differences between boys and girls are more than biological or physiological in nature. From birth on various societal institutions and forces are engaged in socializing boys and girls into their sex roles. Among the various agents involved in sex socialization, schools play a prominent role.[1] Educational institutions, however, do not necessarily perform their socialization function in a neutral manner. Some research indicates that the environment in public schools is such that the interests and behaviors of girls are favored over those of boys. Perhaps this is reflected in one of the findings of the present study that perceived school climate of girls is more positive than that of boys.

Representative of this line of reasoning is Patricia Sexton, who sees the staff and culture of American public schools as feminine oriented.[2] At the elementary level, where males comprise approximately fifteen percent of the teaching population, the feminine orientation is not unexpected; however, at the secondary level, where men teachers are in a slight majority a different set of conditions should prevail.[3] Yet, according to a recent study by Zeigler, the predominance of women in the teaching profession leads even male secondary teachers to play a feminine role.[1] Zeigler is quick to point out that he does not mean an effete role.

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[1] Talcott Parsons, "The School Class as a Social System: Some of Its Functions in American Society," Harvard Educational Review, XXIX (Fall 1959), pp. 297-318.

[2] Sexton, op. cit., pp. 277-279.

[3] John K. Folger and Charles B. Nam, Education of the American Population, a 1960 Census Monograph (Washington, D.C.: U.S. Government Printing Office, 1967), p. 80.

> I mean, rather, that laymen look upon teaching traditionally as a woman's job; insofar as high school teaching is thus interpreted to be a feminine role, those who play that role conform to society's expectations for it; and that it is consequently difficult for a male teacher to establish male authority in this role.[2]

Thus during a period in their lives when they are concerned with asserting their manliness, secondary school boys appear to be placed in an environment which represses it. Concerned with problems of masculine identity, the secondary school may not provide enough in the way of legitimate male role models for boys to emulate. Participation in extracurricular activities might illustrate another instance where the environment of secondary schools is somewhat less than conducive to the development of boys. Aside from sports, school activities can also be considered as having a greater attraction for girls. They usually do not involve those characteristics--independence, aggression, risk-taking, courage--which are associated with males in our culture. Generally then, girls participate in more extracurricular activities and are less likely than boys not to participate at all. This is shown in Tables 21 and 22.

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[1] Harmon Zeigler The Political Life of American Teachers (Englewood Cliffs, New Jersey: A Spectrum Book, Prentice-Hall Inc., 1967),pp. 11-17.

[2] Ibid., p. 12.

## TABLE 21

### PERCENT DISTRIBUTION OF NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN THIS TERM FOR 5469 STUDENTS GROUPED ACCORDING TO SEX

| | Number of Activities | | | |
|---|---|---|---|---|
| Sex | None | 1 to 2 | 3 or more | Total |
| Male | 38 | 43 | 19 | 100 (2743) |
| Female | 22 | 41 | 36 | 99 (2726) |

$X^2 = 255.9$ df= 3 $p < .001$

## TABLE 22

### PERCENT DISTRIBUTION OF TYPES OF EXTRACURRICULAR ACTIVITIES PARTICIPATED IN FOR 5469 STUDENTS GROUPED ACCORDING TO SEX

| | Types of Activities | | | | |
|---|---|---|---|---|---|
| Sex | Mixed | Structured | Unstructured | None | Total |
| Male | 20 | 12 | 36 | 32 | 100(2743) |
| Female | 32 | 17 | 24 | 26 | 99(2726) |

$X^2 = 193.4$ df= 4 $p < .001$

Only in unstructured activities is the participation of boys greater than girls. However, this category also includes school athletics which probably accounts for greater male involvement.

But extracurricular activities are an integral part of school life for all students--so much so, that they have become formalized and institutionalized into a third curriculum with prestige ratings for each activity.[1] The importance of participating and its relationship to perceived school climate were shown in Chapter IV. Students who did not participate at all were the least positive and most negative in their perception of school climate. As Corwin notes, ". . . those students who do not wish to participate in activities feel pressure from their peers, teachers, and parents to join in . . . .Activities which can be displayed are most admired."[2] The acknowledgement of extracurricular activities as an institutional responsibility serves other purposes as well, not the least of which is extending the control of the institution over the student. Willard Waller recognized this when he observed:

> In so far as they have been evolved by the faculty, they have been intended as a means of control, as outlets for adolescent energies or substitutes for tabooed activities. They represent also the faculty's attempt to make school life interesting and to extend the influence of the school.[3]

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[1] Ronald G. Corwin, A Sociology of Education (New York: Appleton-Century-Crofts, 1965), pp. 88-95.

[2] *Ibid*., p. 91.

[3] Willard Waller, The Sociology of Teaching (New York: Science Editions, John Wiley and Sons, Inc., 1965), p. 112.

In essence, activities have evolved into a functional component of secondary schools, and the student who, for various reasons, exercises his choice of not joining encounters a school climate which is not altogether gratifying. The result, for the student, is only partial participation in and a degree of isolation from the school social system. And yet, for an institution which continues to proclaim the virtues of individuality this is a rather inconsistent response indeed.

But, does the individual who fails to conform to the institution's expectations in respect to participation in extracurricular activities have to be placed in this position? The answer appears to be a qualified yes. Kimball and McClellan have described American society as a corporate one.[1] Other writers use similar terms, the meanings of which imply a society characterized by large-scale complex organizations emphasizing such values as group relations, conformity, cooperation, and sociability. In this respect, American schools are no different. They are very much a part of the society, they are complex organizations, and they too require adherence to organizational values. Thus, a contest ensues between an institutional concern with individuality and an organizational one with conformity. Not unusually, organizational goals take precedence over institutional ones.

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[1] Solon T. Kimball and James E. McClellan, Jr., _Education and the New America_ (New York: Random House, 1962).

Table 23 shows that participation in extracurricular activities is also directly related to students' grade level. Movement to the next highest grade level is associated with greater participation in three or more activities. Seniority in the school system, thus, has rewards attached to it.

TABLE 23

PERCENT DISTRIBUTION OF NUMBER OF EXTRACURRICULAR ACTIVITIES PARTICIPATING IN FOR THIS TERM FOR 5469 STUDENTS GROUPED ACCORDING TO GRADE LEVEL

| Grade Level | Number of Activities | | | |
|---|---|---|---|---|
| | None | 1 to 2 | 3 or more | Total |
| Seventh | 41 | 46 | 13 | 100( 640) |
| Eighth | 40 | 41 | 19 | 100( 744) |
| Ninth | 32 | 46 | 22 | 100( 874) |
| Tenth | 27 | 48 | 25 | 100(1122) |
| Eleventh | 28 | 39 | 33 | 100(1044) |
| Twelfth | 20 | 35 | 45 | 100(1045) |

$X^2 = 314.7$ df= 7 $p < .001$

Earlier, however, it was found that the relationship between grade level and perceived school climate was such that junior high students were more positive than students in senior high school; and, as one progressed through the school system, by grade level, there was a decrease in positive perception and an increase in negative perception of school climate. What appears to be happening is a process which can be thought of as, "becoming school-wise." For junior and senior high schools it is the "freshmen," seventh and tenth graders, that are most positive, although ninth graders perceive the school climate more positively than do students in tenth grade. The anticipations and expectations of students who have recently entered into the school experience may influence them toward a positive view. With the passing of time, however, one becomes "wise" to the institution, maybe disillusioned and disappointed, and more critical assessments are made.

To further support this contention, Tables 24 and 25 show that the relationship between perceived school climate and grade level is intensified when participation in extracurricular activities is introduced into the analysis. Thus, perceived school climate of eighth and ninth graders who are participating in three or more activities is less positive than it is for seventh graders participating in three or more activities. Similarly, eleventh and twelfth graders participating in three or more activities are less positive than tenth graders. As another illustration of the "school-wise" thesis, attention is called to the positive perception of school climate category for twelfth graders in Table 25. Compared to the positive perceived school climate of students at other grade levels, the percentage of twelfth graders indicating positive perception varies little, regardless of their extracurricular participation.

## TABLE 24

### PERCENT DISTRIBUTION OF SCS SCORES FOR 2258 STUDENTS GROUPED ACCORDING TO JR. H.S. GRADE LEVEL AND NUMBER OF ACTIVITIES PARTICIPATING IN THIS TERM

| School Climate Scores | Grade Level | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Seventh | | | Eighth | | | Ninth | | |
| | Number of Activities | | | Number of Activities | | | Number of Activities | | |
| | None | 1 to 2 | 3 or more | None | 1 to 2 | 3 or more | None | 1 to 2 | 3 or more |
| Positive | 33 | 46 | 60 | 31 | 38 | 46 | 22 | 39 | 46 |
| Neutral | 40 | 36 | 26 | 36 | 42 | 36 | 40 | 37 | 33 |
| Negative | 27 | 18 | 14 | 33 | 20 | 18 | 38 | 24 | 21 |
| Total | 100<br>(261) | 100<br>(297) | 100<br>(82) | 100<br>(299) | 100<br>(305) | 100<br>(140) | 100<br>(283) | 100<br>(404) | 100<br>(187) |

$X^2 = 22.2$ df $= 4$ $p < .001$ $X^2 = 21.6$ df $= 4$ $p < .001$ $X^2 = 37$ df $= 4$ $p < .001$

## TABLE 25

### PERCENT DISTRIBUTION OF SCS SCORES FOR 3211 STUDENTS GROUPED ACCORDING TO SR. H.S. GRADE LEVEL AND NUMBER OF ACTIVITIES PARTICIPATING IN THIS TERM

| School Climate Scores | Grade Level | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tenth | | | Eleventh | | | Twelfth | | |
| | Number of Activities | | | Number of Activities | | | Number of Activities | | |
| | None | 1 to 2 | 3 or more | None | 1 to 2 | 3 or more | None | 1 to 2 | 3 or more |
| Positive | 18 | 30 | 40 | 19 | 21 | 36 | 22 | 25 | 24 |
| Neutral | 36 | 39 | 30 | 28 | 37 | 36 | 26 | 37 | 37 |
| Negative | 46 | 30 | 30 | 52 | 42 | 27 | 51 | 37 | 38 |
| Total | 100<br>(305) | 99<br>(533) | 100<br>(284) | 99<br>(292) | 100<br>(404) | 99<br>(349) | 99<br>(214) | 99<br>(358) | 99<br>(472) |

Tenth: $X^2 = 44.4$ df $= 4$ $p < .001$ Eleventh: $X^2 = 55.5$ df $= 4$ $p < .001$ Twelfth: $X^2 = 12.6$ df $= 4$ $p < .05$

The fact that the perceived school climate of senior high students is less positive than that of students in junior high school is not unexpected. It might be argued that the junior high school as a smaller and transitory institution, less specialized and with greater opportunity for interaction between students and staff, provides a "warmer" and "friendlier" atmosphere compared to the senior high school. Actually, the two institutions resemble each other in their organizational pattern and the one is looked upon as preparation for the other.[1] The differences between these two levels of schooling may best be understood in terms of institutional demands and student concerns.

Senior high schools, much more so than junior high schools, are concerned with their clients' coming to some decision about their adult roles, usually either entrance into the labor force or prolonged dependence through college. Senior high students are thus subjected to pressure to decide on their future when, according to some, their concerns are more immediate and self-centered. The conflict between the two can be expected to exact its toll in student views toward the institution.

The above discussion accentuates an important development in American society: Occupational and social mobility are closely related to education and the educational system.

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[1] William Marshall French, American Secondary Education, second edition (New York: The Odyssey Press, Inc., 1967), p. 272.

The amount and kind of education individuals receive determine, to a large extent, their "life chances."[1] Considering the relationship between education and mobility and the school's role in sorting and selecting, it is not surprising that students enrolled in the college preparatory program and students planning on post-secondary education, especially college or junior college, are most positive in their perception of the school climate. The reward structure of the school is set up in such a way that prestige, popularity, and better grades accrue to these students. Since they are aware of the dividends to be had from their investment in schooling, the educational program is, perhaps, more meaningful and realistic for them than for any other group of students.

Ralph Turner in an article comparing American and English systems of education has noted that whereas the United States is characterized by contest mobility, the organizing folk norm in England is sponsored mobility.[2]

> Contest mobility is like a sporting event in which many compete for a few recognized prizes. The contest is judged to be fair only if all the players compete on an equal footing. Victory must be won solely by one's own efforts. The most satisfactory outcome

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[1] Burton R. Clark, Educating the Expert Society (San Francisco: Chandler Publishing Company, 1962), pp. 58-80.

[2] Ralph H. Turner, "Modes of Social Ascent Through Education: Sponsored and Contest Mobility," Education, Economy, and Society, eds. A. H. Halsey, Jean Floud, and C. Arnold Anderson (New York: The Free Press of Glencoe, 1961), pp. 121-139.

> is not necessarily a victory of the most able, but of the most deserving . . . .Applied to mobility, the contest norm means that victory by a person of moderate intelligence accomplished through the use of common sense, craft, enterprise, daring, and successful risk-taking is more appreciable than victory of the most intelligent or best-educated.
>
> Sponsored mobility . . . rejects the pattern of the contest and substitutes a controlled selection process . . . .Individuals do not win or seize elite status, but mobility is rather a process of sponsored induction into the elite following selection.
>
> The governing objective of contest mobility is to give elite status to those who earn it, while the goal of sponsored mobility is to make the best use of the talents in society by sorting each person into his proper niche.[1]

Sponsored mobility has its base in the English public (boarding) school system. Contest mobility, on the other hand, is rooted in the values of the protestant ethic, the Horatio Alger myth, and in the American belief of equal educational opportunity. As noted several times in this paper, the literature on social class, race, poverty and education seriously challenges the open contest claim for American education. The ground rules, including opportunities, are not equal throughout the system and a form of sponsorship is implied. Cicourel and Kitsuse, in another context, also question contest mobility as an organizing norm of American education. Their research leads them to believe that "mobility in the highly bureaucratized high school bears a striking resemblance to the sponsorship found in graduate departments of universities . . ."[1] Furthermore, while bureaucratic principles of organization require universalistic and objective criteria, there is sufficient flexibility to provide for the utilization of particularistic and subjective criteria.[2]

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[1] *Ibid.*, pp. 123-124.

A rough indicator of the outcomes of school sponsorship, in terms of the probability of future success, can be seen in the plans students have after they complete high school. That is, the life chances for those who are planning to continue their education should be greater than for those who are not. Within the school, two sources of sponsorship are social class and course of study (track); and, both of these are strongly related to after high school plans.

For example, the data in Table 26 show the relationship between academic track and post high school plans. More than three-quarters of the college preparatory students indicate plans to attend college or junior college after graduation from high school. This option is selected by only twenty-four percent of the vocational-commercial students and twenty-eight percent of the general program students.

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[1] Aaron V. Cicourel and John I. Kitsuse, The Educational Decision-Makers (Indianapolis: The Bobbs-Merrill Company, Inc., 1963), p. 136.

[2] *Ibid.*, pp. 136-138.

## TABLE 26

## PERCENT DISTRIBUTION OF AFTER HIGH SCHOOL PLANS FOR 4790 STUDENTS GROUPED ACCORDING TO COURSE OF STUDY

| Course of Study | After High School Plans | | | | | |
|---|---|---|---|---|---|---|
| | College-Jr. Coll. | Voc. Tech. Train. | Work | Military | Do Not Know | Total |
| College Prep. | 81 | 6 | 2 | 4 | 6 | 99(2569) |
| Vocational-Commercial | 24 | 26 | 28 | 8 | 14 | 100(1203) |
| General | 28 | 12 | 20 | 19 | 21 | 100(1018) |

$X^2 = 1727.1$ $df = 6$ $p < .001$

While twenty-one percent of those in the general track indicate that they "don't know" what they will do after high school, only fourteen percent and six percent of those in the vocational-commercial and college preparatory programs, respectively, do so. Students in the vocational-commercial track are rather evenly distributed among some form of post-secondary education and work. The somewhat high percentage of general program students indicating intention to attend college after high school may be a recognition of the importance of education, but it may also reflect unrealistic aspirations in terms of their academic preparation.

Tracking as an aspect of school organization is not a new phenomenon, however, the constitutionality of this concept was recently challenged. In Hobson v. Hansen, the U. S. District Court for the District of Columbia called attention to the invidious consequences of the track system, noting that even in concept it is "undemocratic and discriminatory." In its decision, the court permanently enjoined the District of Columbia public schools from operating the track system.[1] At the secondary level, tracking often takes the form of different courses of study. Selection is supposedly based on such things as ability, talent, and interests. In theory, it sounds equitable. In practice, as this study has indicated, it rewards some students and penalizes others.

One other finding of the study needs to be discussed, the relationship between perceived school climate and school location. Ideally, this relationship could best be explained through a case study method using some form of participant observation. Because this was not the method utilized, a discussion of the differences between school districts would have to be based on brief impressionistic visits to the schools and limited discussions with staff. Even proceeding on this basis, there would still be some questions since there was little opportunity and no real attempt to interact with students. Despite these qualifications and those previously noted in respect to consolidation of school districts, there are some compelling observations to be made.

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[1] "The Washington, D.C. School Case," Integrated Education, V (August/September, 1967), pp. 207-213.

The dialogue on educational equality often assumes that the suburban middle class school, compared to other public schools, provides a higher quality of education. Thus, James Conant writing about college-oriented suburbs has called attention to the fact that

> . . . one is likely to find effective school boards, great parental interest in the public schools, high expenditure per pupil. Since the citizens are interested in good schools and ample resources are available, the public schools are as good as the professionals know how to make them.[1]

Conant was referring to a small group of affluent "lighthouse" schools, but such comments about suburban schools in general are not difficult to come by, and there is even some empirical evidence which indicates that ". . . students attending large suburban schools emerge from their educational experience relatively better equipped in academic skills. . ."[2]

In terms of those criteria which are most often employed to evaluate schools--such things as per pupil expenditure, advanced programs, student achievement, preparation of staff--the suburban school district apparently does stand out. But these are only some of the things to consider in defining the value of the educational experience. Another important source of evaluation, often neglected, is the students who are encountering the experience. In the present study, the perceived school climate of students in the suburban middle class district is less positive and more negative than that of students in the other districts.

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[1] James Bryant Conant, Slums and Suburbs (New York: McGraw-Hill Book Company, Inc., 1961), p. 81.

[2] Natalie Rogoff, "Local Social Structure and Educational Selection," in A. H. Halsey, et. al., op. cit., pp. 241-251.

While this district may not be representative of other suburban districts and recognizing the difficulties of generalizing to a whole class of objects from one observation, the above finding provides for the possibility that the criteria which the larger society apply in evaluating educational institutions may not be a valid indication of the reactions of the student group. Even if suburban schools provide more and better services, facilities and so on, this does not necessarily mean that they also provide a more satisfying environment for their students. Nor, for that matter, does it mean that the suburban student is more favorably disposed toward his school than students attending schools in other community settings.

The importance of perceived school climate and its effect, present and future, on secondary students must still remain an open issue. An implicit assumption in this study has been that perception of school climate is related to the development and maintenance of educational attitudes and values. Considering that American youth are required to spend a considerable share of their time in school, the institutional climate which they encounter should be expected to have some consequences for present and future behavior.

What happens to those students who see school as a place where they are neither understood nor accepted and where their program is devoid of meaning? How might this particular school experience influence their attitudes toward education and schooling when they become adults?

Education, by definition, implies more than intellectual development. As a process of socialization, it also involves relationships and attitudes. The school as a social system with roles and role relationships predicated partly on status, prestige, and power must be emphasized. The nature of that system helps to determine the climate of a school and how the students perceive it. Student participation in the school social system, to a greater or lesser extent, is dependent on various factors. Some of these factors--sex, course of study, participation in extracurricular activities--have been shown to be related to perceived school climate. Generally, in this study, students whose participation in the social system is limited also express negative perception of the school climate.

Public secondary schools, like elementary schools, are charged with educating all the youth of a given area. Yet, the status discrepancies which exist within any given school prevent this responsibility from being fulfilled. The fact that the educational experience, as seen in perceived school climate, has a different impact on different students is not unusual. What is disturbing, however, is the consistency with which the same groups of students, from school to school and from study to study, appear to be alienated from and dissatisfied with that experience. Something, apparently, is awry in such an educational system, although, just what that something is may not be immediately discernible.

Public schools, of course, do not function as free agents within American society and, as such, cannot be expected to carry all of the burden for these conditions. Certainly the society which supports and encourages the educational system must be examined. But this is, perhaps, begging the issue. Is it unreasonable to expect the educational system to be guided by the kinds of ideals where students are cared for, in a nonpaternalistic sense? To what extent has the institution exploited its resources in order to create an environment which is compatible with more of its clients? Obviously, many students receive an adequate education under the existing system. For some, however, the school experience may become a matter of "doing time," in a prisoner's sense, until they leave.

## C. Limitations of the Study

Most research in the social sciences has limitations attached to it, some more serious than others. The purpose of this section is to call attention to the limitations in the present study. This should provide some guidelines with which to assess the significance of the findings and conclusions that have been reported. Some limitations of the study, especially those related to aspects of the questionnaire, have been noted elsewhere in this document. Several others are discussed below.

First, the present research was both descriptive and exploratory, concerned with determining whether a relationship existed between certain variables. The nonexperimental nature of the study makes it difficult to establish and demonstrate causal relations. Although inferences in regard to causality can be drawn they always remain somewhat hazardous.[1]

Related to this point is the second limitation. In two respects, the research design and analysis was ex post facto. Since the independent variables identified in the study had already occurred, there was no real opportunity to control them through randomization or manipulation. This can lead to improper interpretation. Also the data which were used in the study were based on an instrument and sample that were designed for other research purposes. Kerlinger indicates that in ex post facto studies alternative or "control" hypotheses can be used to achieve controlled inquiry, however, true experimentation is not possible. While ex post facto research has its weaknesses, many research problems do not lend themselves to experimentation.[1]

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[1] Claire Sellitz, et al., Research Methods in Social Relations, revised one-volume edition (New York: Holt, Rinehart and Winston, 1962), pp. 422-424.

A third limitation has to do with the issue of applicability or generality. Several questions can be raised in regard to this: To what extent is the sample representative of the population in general? And, to what extent can generalizations be made beyond the sample? Obviously, the answer to the first question determines the response to the second. If the sample is representative then generalizations, beyond the sample, can be made. If, on the other hand, it is not a representative sample then the findings are mainly applicable to the sample used. Generalizations may be made but must be qualified. The latter explanation applies to the present study. The sample is an incidental one. The participating schools and students represent, but are not necessarily representative of, schools and students in different contexts.

The fourth and last limitation to be discussed is related to the analytic framework employed in the study. This can be seen as the limitation of sociological inquiry in the study of education. In their analysis of the relationship of sociology to the administration of educational establishments, Gross and Fishman call attention to seven improper uses of the findings of sociological inquiry.[1] Some of the items on the Gross and Fishman list are not related to the present study. Nor, for that matter, can all the items be considered as the sole purview of sociology. Some of them might come under the general heading of "improper uses of the findings of empirical inquiry." However, some of the more relevant misuses include: The failure to realize that sociological findings usually refer to classes of events, not to individual cases.[2] This can be seen in the present study where the emphasis was on groups or categories of phenomena. The finding that girls perceive the school climate more positively than boys should not obscure the fact that a substantial proportion of boys do perceive the school climate positively, and many girls perceive it negatively. Related to this is the failure to realize that findings of sociological studies ". . . typically apply only to specified conditions or in particular contexts."[3] That is, the findings of the present study may not apply in other places.

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[1] Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, 1965), Chap. 20.

Another misuse stems from the analytic framework of the sociologist which is both abstract and selective.

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[1] Neal Gross and Joshua A. Fishman, "The Management of Educational Establishments," The Uses of Sociology ed. Paul F. Lazarsfeld, William H. Sewell, and Harold L. Wilensky, (New York: Basic Books, Inc., Publishers, 1967), pp. 332-336.

[2] Ibid., p. 333.

[3] Ibid., p. 333.

[4] Ibid., p. 332.

> . . . the sociologist's basic research strategy is typically to focus his analysis on the relationship between a few independent variables and a single dependent one and to attempt to control . . . other variables that may confound the relationship . . . . But these third variables . . . could be critical factors for the education problem that the administrator wants to solve.[1]

One other misapplication of sociological inquiry relevant to the present research occurs when evidence suggests a causal relationship between two variables,and an assumption is then made that an answer has been found to questions about the way to prevent or solve a practical problem.[2] In the study, for example, a correlation was found between participation in extracurricular activities and positive perception of school climate. This, however, should not be interpreted as meaning that the way in which to increase student satisfaction with school is to encourage greater participation in activities.

## D. Suggestions For Further Research

Similar to other studies, the present investigation suggests additional problems for future research. Actually, two categories of research problems can be identified. The first involves a replication of the study with a more representative sample of schools and students along with the construction and validation of a more extensive perceived school climate scale. The additional problems to be researched in this category might include: determining whether the relationships indicated here are altered by controlling on other variables; determining which variables are the best predictors of perceived school climate; examining perceived school climate as a multi- rather than uni-dimensional construct; reexamining the relationship between perceived school climate and extracurricular activities by including a much broader range of activities; investigating the relationship between perceived school climate and such variables as academic achievement, self-esteem, and alienation; and, considering the possible effect on perceived school climate of factors which are outside the domain of the school, e.g., family structure and parent attitudes. The preceding list is suggestive not definitive. Another consideration could be the use of a panel technique, studying the problem over a period of time to see if changes occur.

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[1] *Ibid.*, p. 333.

[2] *Ibid.*, pp. 334-335.

The second category of suggested research shifts from a strict emphasis on perceived school climate to the broader area of the social system of the school. For example, several questions which come to mind are: How and why do schools differ in their social systems? Is this related to the differences in perceived school climate between students from different schools? What, within the system, is responsible for perpetuating the status discrepancies between students? What function(s) do these discrepancies perform for the system?

# APPENDIX

## University of Pittsburgh Teenage Survey

1. This is not a test or exam. The right answer to each question is the one that tells how you think or feel.
2. Nobody in the school will see your answers.
3. Do not talk while others are writing.
4. Work quickly. Do not mull over any question. If you are doubtful, give whatever answer is closest to your own opinion or feeling and move on to the next question.

### How to answer the questions

Most of the questions can be answered by marking an X or a check mark like this _✓_ on the line beside the answer that fits you best. Disregard the small numbers to the left of the questions; they are only to aid in tabulating your answers.

* * * * *

## BACKGROUND INFORMATION

I

(5) Name of school____________________

(6) Grade in school

1____Seventh
2____Eighth
3____Ninth
4____Tenth
5____Eleventh
6____Twelfth

(7) Course of study (If you are in junior high school what course of study do you expect to enroll in?)

1____General
2____Vocational
3____College Preparatory
4____Commerical
5____Other (specify)__________

(8) Age at last birthday

1____11 years
2____12 years
3____13 years
4____14 years
5____15 years
6____16 years
7____17 years
8____18 years
9____19 years

What is your birthdate?

______________________
month day year

(9) Sex:

1____Male
2____Female

Answer the questions on this page and the next page about your real father and real mother if you live with them.

If you are not living with your real father or real mother answer them about the person you live with who is supposed to be taking their place. It may be a step-father or step-mother, a foster father or foster mother, an uncle or an aunt, or somebody else.

(10) Where was your father born?

1____Pennsylvania
2____Not in Pennsylvania, but in the United States
3____Outside of the United States
4____Don't know

How far did your parents go in school? (Check the highest level each completed.)

| (11)<br>Father | (12)<br>Mother | |
|---|---|---|
| 1____ | ____ | Eighth grade or less |
| 2____ | ____ | Some high school, but did not finish |
| 3____ | ____ | High school graduate |
| 4____ | ____ | Some college, but did not finish |
| 5____ | ____ | College graduate |
| 6____ | ____ | More than college |
| 7____ | ____ | Don't know |

(13) Are your real parents:

1____Living together
2____Divorced
3____Separated
4____One or both my parents not living
5____I'm not sure if both are living

(14) Which one of the following comes closest to describing the work of your father (or the head of your household)? Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he's retired, mark the one that he did last.

1____Workman or laborer -- such as factory, farm or mine worker, filling station attendant, etc.
2____Service worker -- such as barber, policeman, waiter, handyman, etc.
3____Semi-skilled worker -- such as factory machine operator, bus or cab driver, meat cutter, etc.
4____Skilled worker or foreman -- such as a baker, carpenter, electrician, tailor, foreman in a factory or mine, etc.
5____Clerical worker -- such as bank teller, bookkeeper, sales clerk, mail carrier, messenger, etc.
6____Salesman -- such as store salesman, real estate or insurance salesman, factory representative, etc.
7____Proprietor or owner -- such as owner of a small business, farm owner, wholesaler, contractor, restaurant owner, etc.
8____Manager or executive -- such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
9____Professional -- such as accountant, clergyman, dentist, engineer, lawyer, etc.

(15) Has your mother worked for pay at any time in the last three years?

1____Yes, regular part-time work
2____Yes, occasional part-time work
3____Yes, regular full-time work
4____Yes, occasional full-time work
5____No
6____I don't know

(16-17a) Do your parent's own or rent the place where you live?

1____Own
2____Rent

(b) If your family is renting your home or the place where you live, about how much are they paying each month?

1____Less than $50
2____$50 to $59
3____$60 to $69
4____$70 to $79
5____$80 to $99
6____$100 to $114
7____$115 or more
8____Don't know

(18) Please make the best estimate you can of your family's total income for last year. Include money earned by both parents or anyone else in the household who worked and money received from pension or public assistance.

1____Less than $2,000
2____$2,000 to $2,999
3____$3,000 to $4,999
4____$5,000 to $7,999
5____$8,000 to $11,999
6____$12,000 or more
7____I can't estimate this

(19) Which of the following best describes your family's financial condition?

1____Barely able to make a living
2____Have the necessities
3____Fairly comfortable
4____Very comfortable
5____Well-to-do
6____Wealthy

(20) If you were asked to use one of these names to describe your family's social group, which would you say your family belongs to?

1____Upper class
2____Upper middle class
3____Middle class
4____Lower middle class
5____Working class
6____Lower class

* * * * *

NOW WE WOULD LIKE TO ASK YOU ABOUT SOME OF YOUR SCHOOL ACTIVITIES AND EXPERIENCES

(21) How many extracurricular activities in school are you taking part in this term?

____Activities

Since you entered high school or junior high school, have you ever belonged to the following organizations or engaged in the following kinds of activities?

| | Yes | No |
|---|---|---|
| (22) School newspaper | 1____ | 2____ |
| (23) School magazine | 1____ | 2____ |
| (24) School band or orchestra | 1____ | 2____ |
| (25) Student government | 1____ | 2____ |
| (26) Glee club or choir | 1____ | 2____ |
| (27) School athletics | 1____ | 2____ |

How strongly do you agree or disagree with the following statements?

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| (28) I read very well | ____ | ____ | ____ | ____ | ____ |
| (29) I seem to accomplish very little compared to the amount of time I spend studying | ____ | ____ | ____ | ____ | ____ |
| (30) This school is doing its best to give us a good education | ____ | ____ | ____ | ____ | ____ |
| (31) Teachers are too interested in their success to care about the needs of students | ____ | ____ | ____ | ____ | ____ |
| (32) If I have a complaint to make, I feel free to talk to the teachers | ____ | ____ | ____ | ____ | ____ |
| (33) Students at this school are very friendly | ____ | ____ | ____ | ____ | ____ |

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| (34) Teachers expect too much work from us at school | ____ | ____ | ____ | ____ | ____ |
| (35) My classmates are glad to have me as a member of their school | ____ | ____ | ____ | ____ | ____ |
| (36) I really feel like part of this school | ____ | ____ | ____ | ____ | ____ |
| (37) Most teachers are friendly and can be easily approached | ____ | ____ | ____ | ____ | ____ |
| (38) School is often dull and monotonous | ____ | ____ | ____ | ____ | ____ |
| (39) Teachers at this school are really interested in the welfare of the students | ____ | ____ | ____ | ____ | ____ |

(40) You know teenagers have all sorts of ideas about school. Some like going to school and some don't. How about you? Do you:

1____Like school a lot
2____Like school fairly well
3____Don't care one way or the other
4____Dislike school
5____Dislike school very much

(41) How hard do you find you have to work in school?

1____Very hard
2____Hard
3____Average
4____Not very hard
5____Not very hard at all

(42) How important do you feel it is to do your best in school?

1____Very important
2____Important
3____Not particularly important
4____Doesn't matter to me at all

(43) How important is it to you to get good grades in school?

1____Very important
2____Important
3____Not particularly important
4____Grades don't matter to me at all

(44) How do you feel if you don't do as well in school as you know you can?

1____Feel very bad
2____Feel bad
3____Don't feel particularly bad
4____Doesn't bother me at all

(45) What kind of grades do you try to get in school?

1____Mostly A's
2____Mostly B's
3____Mostly C's
4____Mostly D's
5____Don't try to get any particular grades

(46) In the last year have you ever cut school?

1____Yes
2____No

(47) On the average, how many hours do you study each week? Include study periods in school as well as studying done at home.

____Hours

12

* * * * *

## THIS SECTION DEALS WITH THE KIND OF PERSON YOU ARE

**For each of the following statements, check how strongly you agree or disagree.**

**(Check one for each statement)**

| | **(1) Strongly Agree** | **(2) Agree** | **(3) Uncertain** | **(4) Disagree** | **(5) Strongly Disagree** |
|---|---|---|---|---|---|
| **(48) I feel that I have a number of good qualities** | ____ | ____ | ____ | ____ | ____ |
| **(49) All in all, I am inclined to feel that I am a failure** | ____ | ____ | ____ | ____ | ____ |
| **(50) At times I think I am no good at all** | ____ | ____ | ____ | ____ | ____ |
| **(51) I feel that I'm a person of worth, at least on an equal plane with others** | ____ | ____ | ____ | ____ | ____ |
| **(52) I feel I do not have much to be proud of** | ____ | ____ | ____ | ____ | ____ |
| **(53) On the whole, I am satisfied with myself** | ____ | ____ | ____ | ____ | ____ |
| **(54) I take a positive attitude toward myself** | ____ | ____ | ____ | ____ | ____ |
| **(55) I certainly feel useless at times** | ____ | ____ | ____ | ____ | ____ |
| **(56) I am able to do things as well as most other people** | ____ | ____ | ____ | ____ | ____ |
| **(57) I wish I could have more respect for myself** | ____ | ____ | ____ | ____ | ____ |

**(58) On the whole, how happy would you say you are?**

1____Very happy
2____Fairly happy
3____Not very happy
4____Very unhappy

**(59) In general, how would you say you feel most of the time -- in good spirits or in low spirits?**

1____Very good spirits
2____Fairly good spirits
3____Neither good nor low spirits
4____Fairly low spirits
5____Very low spirits

**(60) How important to you, personally, is it to get ahead in life?**

1____Very important
2____Fairly important
3____Not very important
4____Very unimportant

(61) Do you ever have trouble getting to sleep or staying asleep?

1____Often
2____Sometimes
3____Almost never
4____Never

(62) Are you ever bothered by nervousness?

1____Often
2____Sometimes
3____Almost never
4____Never

Below are a list of terms which describe people. How well would you say each word describes you?

(Check one for each word)

| | (1) Very Well | (2) Fairly Well | (3) A Little | (4) Not at All Well | (5) Don't Know |
|---|---|---|---|---|---|
| (63) Hard-working . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (64) Messy. . . . . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (65) Ambitious. . . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (66) Cooperative. . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (67) Cheerful . . . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (68) Polite and courteous . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (69) Eager to learn . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (70) Dependable . . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (71) Rude . . . . . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |
| (72) Well-behaved . . . . . . . . . . . . . . . . | ___ | ___ | ___ | ___ | ___ |

II How strongly do you agree or disagree with the following statements?

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| (5) The young man of today can expect much of the future | ___ | ___ | ___ | ___ | ___ |
| (6) The more education a man has the better he is able to enjoy life | ___ | ___ | ___ | ___ | ___ |
| (7) Our schools do a poor job of preparing young people for life | ___ | ___ | ___ | ___ | ___ |
| (8) Education helps a person to use his leisure time to better advantage | ___ | ___ | ___ | ___ | ___ |
| (9) Only subjects like reading, writing, and arithmetic should be taught at public expense | ___ | ___ | ___ | ___ | ___ |
| (10) A high school education is worth all the time and effort it requires | ___ | ___ | ___ | ___ | ___ |
| (11) A person is foolish to keep on going to school if he can get a job | ___ | ___ | ___ | ___ | ___ |

(Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| (12) Success is more dependent on luck than on real ability | ____ | ____ | ____ | ____ | ____ |
| (13) These days a person doesn't really know who he can count on | ____ | ____ | ____ | ____ | ____ |
| (14) Nowadays a person has to live pretty much for today and let tomorrow take care of itself | ____ | ____ | ____ | ____ | ____ |
| (15) Things are changing so fast these days that one doesn't know what to expect from day to day | ____ | ____ | ____ | ____ | ____ |
| (16) Every person should make a strong effort to improve his social position | ____ | ____ | ____ | ____ | ____ |
| (17) There will always be a great lack of understanding between the rich and the poor | ____ | ____ | ____ | ____ | ____ |
| (18) Almost anyone in our society can improve his standard of living if he is willing to work hard | ____ | ____ | ____ | ____ | ____ |
| (19) Obedience and respect for authority are the most important virtues children should learn | ____ | ____ | ____ | ____ | ____ |
| (20) People can be divided into two distinct classes: the weak and the strong | ____ | ____ | ____ | ____ | ____ |
| (21) Many people use poverty as an excuse for not trying to better themselves | ____ | ____ | ____ | ____ | ____ |
| (22) Given a chance, most poor people would make a go of life | ____ | ____ | ____ | ____ | ____ |
| (23) Federal aid to underprivileged school children is a good idea | ____ | ____ | ____ | ____ | ____ |
| (24) Having fun now is more important than worrying about the future | ____ | ____ | ____ | ____ | ____ |
| (25) Success in life depends upon ability and effort, not how much education one has | ____ | ____ | ____ | ____ | ____ |
| (26) No amount of education or special training can make up for a lack of natural ability | ____ | ____ | ____ | ____ | ____ |

| | (Check one for each statement) | | | | |
|---|---|---|---|---|---|
| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
| (27) Most students are bored with school | ____ | ____ | ____ | ____ | ____ |
| (28) The present is all to often full of unhappiness. It is only the future that counts | ____ | ____ | ____ | ____ | ____ |
| (29) A college education would help me to do the things that I am most interested in | ____ | ____ | ____ | ____ | ____ |
| (30) College would cost more than it is worth to me | ____ | ____ | ____ | ____ | ____ |

Thank you for your cooperation in filling out this questionnaire.

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# SOCIAL ORIGINS AND VALUES OF TEACHERS AND THEIR ATTITUDES TO STUDENTS FROM POVERTY BACKGROUNDS

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# PREFACE

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# I. INTRODUCTION

## A. The Problem

It is widely acknowledged that many interacting factors are responsible for the "educational deprivation" of the poor. Neglecting consideration of financial aspects of the problem, explanation of the situation focuses upon social class differences with respect to such factors as socialization,[1] verbal skills,[2] motivation and values,[3] self evaluation,[4] peer relationships,[5] and the biases of teachers. In diagrammatic form these links between socio-economic status and educational horizons are presented in Figure 1.

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[1] Cf. Melvin Kohn, "Social Class and the Exercise of Parental Authority," American Sociological Review, 24 (June, 1959), 352-366; John Nisbet, "Family Environment and Intelligence," in A. Halsey, et al. (eds.), Education, Economy and Society (New York: Free Press, 1961), 273-287.

[2] The etiology and social ramifications of social class differences in linguistic development are considered by Basil Bernstein in "Social Class and Linguistic Development: A Theory of Social Learning," in A. Halsey, et al. (eds.), op. cit., 288-314. See also, W. Lambov, "Phonological Correlates of Social Stratification," American Anthropologist, 66 (December, 1964), 167-176.

[3] Cf. Bernard C. Rosen, "The Achievement Syndrome: A Psycho-cultural Dimension of Social Stratification," American Sociological Review, 21 (April, 1956), 203-215; J. A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, 23 (1953), 186-203; Herbert H. Hyman, "The Value Systems of Different Classes," in R. Bendix and S. Lipset (eds.), Class, Status and Power (Glencoe: Free Press, 1953), 426-442.

[4] Cf. Morris Rosenberg, Society and the Adolescent Self-Image (Princeton, N. J.: Princeton University Press, 1965).

[5] Cf. James S. Coleman, The Adolescent Society (New York: Free Press, 1961); Robert E. Herriott, "Some Social Determinants of Educational Aspiration," Harvard Educational Review, 33 (Spring, 1963), 157-177.

The focus of the present research is upon the teacher as a possible block to the realization of the educational potential of pupils from low income backgrounds. Specifically, we shall examine the nature of teachers' attitudes toward poverty youth and upon etiological factors resulting in the development of these attitudes.

In addressing himself to the possible relationship between teacher's attitudes and the educational attainment of pupils, Charters states that four major links exist in the reasoning which has characterized writing in this field. First, persons raised in middle-class families hold values in their adulthood differing from those held by persons raised in lower-class families. Second, teachers are drawn from the middle stratum of the American social class system and consequently espouse those values characterizing the middle class. Third, teachers guide their classroom behavior according to the values of their social stratum. Fourth, based upon the previous three assumptions:

> . . . it is proper to conclude that pupils of the lower class will experience frustration and failure and pupils of the higher classes will experience gratification and success in

FIGURE 1. MODEL OF TYPES OF VARIABLES INTERVENING BETWEEN STUDENT SES AND EDUCATIONAL HORIZONS*

Cost of Education

Socialization Differences

Verbal Skills Differences

SES        Value Differences        Educational Horizons

Self Evaluation Differences

Relationships with Peers

Relationships with Teachers

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*Adapted from Sarene S. Boocock, "Toward A Sociology of Learning: A Selective Review of Existing Research," Sociology of Education, 39, 1 (Winter, 1966), 32.

> their educational experiences. The evidence supporting this conclusion is overwhelming.[6]

The logic of this argument is compelling; the conclusion is clear-cut. Perhaps because of the parsimonious appeal of the argument, its profound implications throughout society, and the repeatedly demonstrated veracity of the conclusion, the argument has been widely accepted as a verified proposition.

A statement by Rich[7] provides an example. He argues that the problem of the lower class child in the school is primarily determined by the middle class origins of the teacher. Not only is the middle class teacher seen to lack objective knowledge of the characteristics and social patterns of the lower class child, but judgment of the child takes place with respect to middle class standards. Interestingly, he does not concern himself with a possible variation in teacher social class origins or values.

In an extensive review of research related to the "sociology of learning," Boocock considers the case for class-based teacher discrimination to have been demonstrated. Citing Bell,[8] Charters,[9] and Becker,[10] she states:

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[6] W. W. Charters, Jr., "The Social Background of Teaching," Handbook of Research on Teaching, N. L. Gage (ed.) (Chicago: Rand McNally and Co., 1963), Chapter 14, p. 739.

[7] John Martin Rich, "How Social Class Values Affect Teacher-Pupil Relations," Journal of Educational Sociology, 33 (May, 1960), 355-359.

> Finally when the lower class child gets to school, he cannot expect to receive the same treatment that his middle class age peers will receive. Teachers tend to be drawn heavily from the middle class, or to be using teaching as a means of upward mobility into the middle class. Given that teachers, like most people, tend to hold the values of their class, they will have more positive feelings toward their middle class pupils.[11]

The role of middle-class values of school personnel in restricting the educational horizons of the lower-class child has been accepted by Berelson and Steiner as one of the 1,045 well-documented findings in the behavioral sciences:

> D3. Since the public school system is operated primarily by adults with middle-class values, the lower class child is penalized not only on educational grounds, but on broadly social grounds as well.[12]

Regardless of the wide-spread acceptance of the line of reasoning presented above, one should be cognizant of the warning voiced by Gross. With reference to the possibility of illegitimate use of sociology in the field of education, he cautioned:

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[8] Robert R. Bell, "Social Class Values and the Teacher," in R. R. Bell (ed.), The Sociology of Education (Homewood, Illinois: Dorsey Press, 1963), 253-257.

[9] Charters, op. cit.

[10] Howard S. Becker, "The Career of the Chicago Public School Teacher," American Journal of Sociology, 57 (1952), 470-477.

[11] Boocock, op. cit., p. 35.

[12] Bernard Berelson and Gary A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace and World, 1964), pp. 439-440.

> . . . A second pitfall is the uncritical acceptance of unverified pronouncements of sociologists as verified propositions. There are many statements to be found in textbooks of educational sociology that are speculative in nature and which are not based upon rigorous research evidence. Hunches and speculations need to be distinguished from verified propositions.[13]

Gross might well have presented the literature on the role of the teacher in reference to the educational horizons of the low-income child as a case in point. Perhaps in no other area of educational sociology is there to be found such extensive, unquestioning acceptance of almost totally unverified "hunches and speculations."

The parsiminous appeal of the argument sketched above and the accepted validity of the conclusion should not blind us to the necessity of empirical evaluation of the links in the hypothesized causal chain. One should indeed be wary of committing the logical fallacy of affirming the consequent. The evidence for the case must be examined.

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[13] Neal Gross, "Some Contributions of Sociology to the Field of Education," Harvard Educational Review, 29 (Fall, 1959), p. 286.

## B. Related Literature

Much of the support for the thesis that teacher bias is responsible for suppression of the educational aspirations of lower social class children stems from various community studies.[14] Although these studies have been concerned with a wide-range of social analysis, they have considered the relationship between educational institutions and other aspects of the social structure--particularly its stratification.

Historically, community studies dealing with educational variables commenced during the middle 1920's. In examining patterns of "training the young" in Middletown, the Lynds[15] discussed differences in educational attainment between the "business" and the "working" class. In their description of school life, they argued that the school system via teachers and curriculum reflects the values of the business class and depresses the educational aspirations of pupils from the working class.

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[14] A useful brief review of the educational implications of the major community studies is provided by W. B. Brookover and David Gottlieb in "Social Class and Education" in W. W. Charters, Jr., and N. L. Gage (eds.) Readings in the Social Psychology of Education (Boston: Allyn and Bacon Inc., 1963), pp. 3-11. A more comprehensive treatment is provided by Charters, op. cit.

[15] Robert S. Lynd and Helen Merell Lynd, Middletown: A Study in Modern American Culture (New York: Harcourt, Brace and World, Inc., 1929).

The educational findings and implications of the earlier studies by Warner and Associates[16] were integrated and synthesized by Warner, Havighurst, and Loeb.[17] American schools were seen to function conservatively to minimize upward mobility of most children from the lower class. Responsibility for this bias is attributed to the middle class values of teachers and school administrators. Their view of the role of the teacher foreshadows many current statements.

> Teachers represent middle-class attitudes and enforce middle-class values and manners. In playing this role, teachers do two things. They train or seek to train children in middle-class manners and skills. And they select those children from the middle and lower classes who appear to be the best candidates for promotion to the social hierarchy.[18]

Davis and Dollard[19] argued, as a result of their research in a southern community, that social class value orientations of the teacher determine the distribution of reward and punishment in the classroom. In addition, they also determine the kinds of pupil behavior which the teacher will perceive as personally rewarding.

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[16] Cf. W. L. Warner and P. S. Lunt, The Social Life of a Modern Community (New Haven: Yale University Press, 1941); W. L. Warner and P. S. Lunt, The Status System of a Modern Community (New Haven: Yale University Press, 1942); A. Davis, B. B. Gardner and M. R. Gardner, Deep South (Chicago: University of Chicago, 1941).

[17] W. L. Warner, R. J. Havighurst, and M. B. Loeb, Who Shall Be Educated? (New York: Harper & Row, Publishers, 1944).

[18] Ibid., p. 107.

[19] A. Davis and J. Dollard, Children of Bondage (Washington, D.C.: American Council on Education, 1940), pp. 281-282.

Similar conclusions have been reached with almost monotonous regularity in other community studies. A multifaceted study of Prairie City[20] indicated that teachers taught and enforced middle-class values, rewarding those who adhered to middle-class standards and punishing those who did not.

Hollingshead's[21] study of adolescents in the social structure of Elmtown is often cited in support of the middle class bias of the schools. He accounted for educational differences among children of different classes in two major ways. In the first instance, the lower class adolescent has been inadequately socialized in terms of the demand characteristics of the school environment. Second, the middle class bias of the school personnel (primarily teachers) leads to discrimination against the child.

A study of the social system of the Wabash High School was conducted by Gordon with results similar to those of earlier community studies. He also considered the extent to which the teacher is constrained and forced to discriminate by the system.

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[20] Robert J. Havighurst and H. Taba (eds.), Adolescent Character and Personality (New York: John Wiley and Sons, Inc., 1949).

[21] August B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949).

> . . . The Wabash study reveals the same ascriptive influences of the social class system which have been reported by Warner, Hollingshead, and others. The drive for ascriptive rewards operates both at the value level, which introduces subjective biases in the grading system, and at the power level in which teachers assigned rewards and punishments with the awareness that direct and indirect consequences might result from not doing so.[22]

The influence of these community studies in providing "evidence" for the argument for teacher discrimination has been quite pervasive. An important pronouncement by Davis, for example, relied almost solely upon the community studies.

> From his middle-class culture, learned from his parents, teachers, and friends, both the teacher and the professor of education have learned to regard certain mental interests and skills, certain moral values, as the 'best' or 'most cultured,' or most 'intelligent.'[23]

Criticism may be levied against the majority of community studies relating education to social class. It may be argued that the small communities analyzed are inadequate samples from which to generalize to the totality of American society. It is not at all clear, for example, that findings derived from studies of small Southern, or Midwestern communities are applicable to the large Northern city. The small town represents a more-or-less personalized, closed system; social control may be largely mediated through primary group relations. In the large urban area, on the other hand, the sources of social control may be more impersonal and diffuse.

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[22] Wayne C. Gordon, The Social System of the High School: A Study in the Sociology of Adolescence (Glencoe, Ill.: The Free Press, 1951), p. 42.

[23] Allison Davis, Social Class Influences on Children's Learning (Cambridge: Harvard, 1948), p. 89.

A second, closely related, criticism concerns the problem of sampling in time. The majority of community studies which provide data for the argument of school and teacher discrimination against the low-income child were carried out two to four decades ago. Considering the extensive social changes which have occurred since the original work of Warner, Havighurst, the Lynds, and Hollingshead, it is altogether possible that modification of the discriminatory patterns has taken place.

It should also be pointed out that the actual "data" reported by the various community studies is inadequate for purposes of refined analysis. Techniques of measurement are primarily observational, giving rise to problems of selective bias of the observer. In large measure, teacher discrimination is an inferred variable, based upon the empirical link existing between student socio-economic status and educational disadvantage. Although interviews with teachers are frequently presented to strengthen the inferred existence of large-scale discriminatory patterns, we must agree with the Yiddish proverb, "'For example' is no proof." The absence of precisely defined, measured, and reported data related to the extent and patterning of discriminatory attitudes and practices by teachers is among the major weaknesses of the community studies.

Consideration of the above limitations of the community studies leads to the necessity of examination of further evidence supporting the argument. As will be noted, however, there is a paucity of data based studies.

Representative of empirical attempts designed to measure hypothesized teacher bias in the classroom situation is a study by Glidewell, et al.[24] In this questionnaire study, teachers reported a lower incidence of adjustment problems among pupils from middle class backgrounds than those from lower class homes. Parental reports corresponded with teacher perception. Thus, in this instance, the researchers concluded that teachers did not evidence a class bias in their definition of "undesirable" behavior.

Charters[25] is also concerned with the problem of objectively measuring the accuracy of teachers' decisions with respect to the acceptability of the behavior of the lower class student. To what extent is the lower class child defined in negative terms because he is judged from a middle class frame of reference and to what extent is the assessment a reflection of behavior which is disapproved equally in all social classes? With specific reference to the Glidewell, *et al*. research, Charters concludes that it is more parsimonious to attribute the correlation between lower class standing and adjustment problems reported by teachers to the astuteness of the teacher rather than to a class-based bias intervening in their definition of the situation.

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[24] J. C. Glidewell, H. R. Domke, and Mildred B. Kantor, "Behavior Symptoms in Children and Adjustment in Public School," Human Organization, 18 (1959), 123-130.

[25] Charters, op. cit., p. 737.

Teacher favoritism in the classroom was examined by Hoehn[26] in a study of 19 third grade teachers. An attempt was made to operationalize favoritism by looking at the interaction rates of teachers with pupils from various social class backgrounds. Interestingly, he interpreted teachers' qualitative differentiation of students as based upon achieved rather than ascribed characteristics. Hoehn was hard pressed to account for the differences in discriminatory behavior which appeared *among* teachers, however. He noted that some teachers expressed no apparent favoritism with respect to either low or high status pupils, while others consistently favored one of the two groups. Since all teachers were considered to be "middle-class," class based differences could not be used to explain the favoritism. It is unfortunate that the inadequacy of Hoehn's sample size severely limits the confidence one may have with respect to his findings.

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[26] Arthur J. Hoehn, "A Study of Social Status Differentiation in the Classroom Behavior of Nineteen Third Grade Teachers," *Journal of Social Psychology*, 39 (1954), pp. 269-292.

A study based on a more substantial sample than Hoehn's is offered by Himmelweit,[27] also addressed to the question of teacher favoritism as a reflection of social class bias. It was her conclusion that among 600 English male students aged 13-14, teacher favoritism tended to be in the direction of the more middle class student. No variables were presented in an attempt to explain differences among teachers.

The work of Becker is often cited as evidence of biased teacher reaction to the obvious socio-economic differences among pupils. In the course of interviewing 60 teachers in the Chicago public schools about the problems encountered in teaching, he noted spontaneous evaluations of pupils in terms of social class membership. He concluded that class differences among pupils tended to be cited with respect to teaching problems, discipline and the moral acceptability of the pupils. With respect to teaching difficulties Becker stated:

> Teachers tend to use class terms in describing the children with whom they work. Children of the lowest group, from slum areas,

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[27] Hilde T. Himmelweit, "Socio-Economic Background and Personality," International Social Science Bulletin, 7 (Fall, 1955), pp. 29-35.

> are characterized as the most difficult to teach successfully.[28]

Further, middle class children were considered easiest to discipline. Slum children were perceived to transgress with respect to such value-laden areas as work and ambition, sex and aggression, and health and cleanliness.

A major drawback to Becker's study is the absence of quantified data. Although interview material is liberally quoted, the relative incidence of patterned discrimination is not reported. Secondly, and perhaps more importantly, all "social class variation" is on the pupil side of the relationship. Reported differences in teachers' perceptions of pupils pertain to class based differences in the pupil population. Differences in social class bias which may exist among teachers are ignored.

Data are marshalled by Sexton[29] which serve to further buttress the fact of differential treatment of pupils by social class position. The question of teacher bias is raised. That is to say, the pupil composition of Big City's Detention School is top heavy with students from lower income groups. The same pattern is noted in the upgraded classes which are used as "dumping grounds" for children who are defined as problems in the classroom. It is apparent that school and teacher diagnoses of lower class children as delinquent much more frequently than their middle class counterparts do not totally represent bias. Nevertheless, the lower class child is likely to be defined by the school as a deviant. Sexton, like so many other researchers, does not attempt to tackle the problem of variation in ascriptive practices among teachers. Thus a common instance of educational deprivation is reiterated, but not explained.

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[28] Howard S. Becker, "Social-Class Variations in the Teacher-Pupil Relationship," *Journal of Educational Sociology*, 25 (April, 1952), 454.

[29] Patricia Cayo Sexton, *Education and Income* (New York: Viking Press, 1964), pp. 70-74.

Other researchers have tried to assess the possible effects of teacher bias on the actual motivation and performance of students. Page,[30] for example, analyzed teacher comments on pupils' tests with the following result:

> When the average secondary teacher takes the time and trouble to write comments (believed to be 'encouraging') on student papers, these apparently have a measurable and potent effect upon student effort, or attention, or attitude, or whatever it is which causes learning to imporve, and this effect does not appear dependent on school building, school year, or student ability.[31]

Although Page does not relate his work to social class differences in the school, his findings tend to support the role of teacher attitudes in the relationship between pupil social class and subsequent educational horizons. To the extent that the teacher perceives the low-income child as morally or intellectually inferior and directs little favorable attention toward him, the "self-fulfilling prophesy" will operate to tend to produce academically inferior work.

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[30] Ellis B. Page, "Teacher Comments and Student Performance: A Seventy-Four Classroom Experiment in School Motivation," Journal of Educational Psychology, 49 (1954), pp. 175-181.

[31] *Ibid*., p. 181.

Perhaps the most direct teacher influence on student motivation occurs in informal counseling sessions. Thus, this is an area in which teacher bias may have a deleterious effect on the educational strivings of lower class youth. Kahl[32] is convinced that the role of the teacher is minor in comparison to the role of the parent. Ellis and Lane,[33] however, disagree. In their population of 194 college students with lower class backgrounds, thirty-three per cent cite a teacher as being the most important influence in their going to college. With respect to the total sample of all college students from all social class backgrounds, the equivalent statistic is four per cent.[34]

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[32] Kahl, op. cit., p. 199.

[33] Robert A. Ellis and W. Clayton Lane, "Structural Supports for Upward Mobility," American Sociological Review, 28, 5 (October, 1963), pp. 743-756; A similar finding is presented by Richard L. Simpson, "Parental Influence, Anticipatory Socialization, and Social Mobility," American Sociological Review, 27 (August, 1962), pp. 517-522.

[34] Ibid., p. 751.

It should be noted that the Ellis and Lane study is retrospective. College students are asked to reflect upon earlier determinants of their plans. Although the actual influence of the teacher is well documented, there exists the possibility that teachers are more likely to support the college plans of middle class pupils whom they perceive as being potentially more promising. Ironically, it may be the lower class pupil who stands to be more dependent upon teacher encouragement and also the one least likely to receive it.

Empirical studies concerned with teacher bias are sparse and fragmented; for the most part, they are content with relating teacher behavior to the social class based behavior of their pupils. The other side of the coin, social class variations in teachers as they may be related to subsequent classroom procedure, is not examined. The literature includes a strict consideration of the social origins of teachers _per se_. No attempt is made to take the next step; that is, relate variations in teacher social origins to characteristic attitudes and behaviors they may evidence in their interaction with students, particularly those from the lower end of the social hierarchy.

Before pursuing the relationship between the role of the teacher and the many facets of educational deprivation, let us pause to consider where teachers are reported to come from with respect to the socio-economic position of their family of origin.

Studies concerned with the social origins of teachers tend to be conflicting and contradictory. Some of the confusion is accounted for by the fact that the social composition of this occupational group changes over time and regional variations are commonplace.[35]

Typical of an early descriptive study is the report by Coffman[36] which resulted from the administration of 5,200 questionnaires in 17 cities in the Eastern U.S. to licensed teachers. The origins of teachers were reported in terms of broad demographic categories. The absence of hypothesis testing and the passage of time has diminished the relevance of such studies.

Thirty years later based upon the extensive work by Warner and associates, Warner, Havighurst and Loeb summarize social origins:

> In the East and the South, where class lines have been established longer, the teachers are usually in the upper-middle class, and many of them have risen from the lower middle class

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[35] _Cf_. C. McGuire and G. D. White, "Social Origins of Teachers in Texas," in _The Teacher's Role in American_ Society, L. J. Stiles (ed.) (New York: Harper, 1957), pp. 23-41; W. Wattenberg, _et al_., "Social Origins of Teachers--A Northern Industrial City," _op. cit_., pp. 13-22.

[36] L. D. Coffman, "The Social Composition of the Teaching Population," _Teachers College Contributions to Education_, No. 41, 1911.

> families. In the Middle West and West, the teachers are usually lower-middle class, and many of them have risen from lower-class families.[37]

In their textbook on educational sociology, Havighurst and Neugarten[38] consider, in general, what may be the social origins of many of the older teachers currently teaching today. They found a definite tendency among teachers to be born into the lower-middle class and have acquired full middle-class status through professional education.

Allison Davis corroborates the essentially middle class teacher origin.

> . . . The people who devise and teach the curriculum of the public schools are nearly all middle class. More than 95 per cent of the teachers in New England, the Deep South, and the Midwest . . . are middle class.[39]

Lieberman[40] reaches a conclusion which has the standing of a minority report. He describes teachers as having, by and large, upper lower class origins and coming from homes which are culturally impoverished and from families inactive in both political and community affairs.

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[37] Lloyd L. Warner, Robert J. Havighurst, and M. B. Loeb, Who Shall be Educated? (New York: Harpers, 1944), p. 101.

[38] Robert J. Havighurst and Bernice Neugarten, Society and Education (Boston: Allyn and Bacon, 1957), p. 265.

[39] A. Davis, loc. cit.

[40] M. Lieberman, Education as a Profession (Englewood Cliffs, N. J.: Prentice Hall, 1956).

Carlson[41] implicitly joins Lieberman in refuting the "myth" of teacher middle class origins. He notes that although teachers tend to be over-representative of the top half of the SES continuum, thirty-six per cent, nevertheless, are recruited from non-middle class origins.

A recent and impressive study by James Davis[42] may shed some light on the social origins of the present crop of young teachers. Davis randomly sampled all 1961 college graduates. He found that low parental socio-economic status was persistently associated with choice of education as a career, even when other variables also related to career choice were controlled. He concluded that the field of education was more of a path of upward mobility than other occupations requiring a college education.

The retrospective nature of Davis' research, prompted Werts[43] to analyze the intended major of a sample of college freshmen with respect to their social class backgrounds. It was found that teaching as compared with other occupations was consistently over-chosen by sons of manual laborers, semi-skilled workers, farmers, clerical workers, and skilled workers; education and consistently under-chosen by sons of salesmen, businessmen and professionals. Interestingly, similar patterns were observed for females.

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[41] R. O. Carlson, "Variation and Myth in the Social Status of Teachers," Journal of Educational Sociology, 33 (1961), 104-118.

[42] James A. Davis, Undergraduate Career Decisions (Chicago: Aldine, 1965).

[43] Charles E. Werts, "Social Class and Initial Career Choice of College Freshmen," Sociology of Education, 39 (Winter, 1966), 74-85.

Attempts to relate teacher origins to current values and behavior have been mainly speculative. Spindler,[44] for example, in a theoretical work purposes that teachers are from the puritanical element of the lower middle class which emphasizes self-denial and other traditional values. This lower middle class origin eventually results in a feeling of cultural ambivalence on the part of teachers as a discontinuity in their value systems develops when they encounter a new culture, i.e., lower class, in the course of their training.

Acknowledging that socially mobile teachers may attempt to escape their lower status origins by becoming avid converts to the middle class, Corwin points out that these teachers may be different from those whose entire social history was passed in the middle class. He goes on to question whether or not teachers reflect middle class values even if they do fall into the broad middle class spectrum. The effects of the teaching culture encountered via education, travel, professional ethics, and public service values, for example, may perhaps have a unique effect on teachers' values. Also there is reason to believe that teachers may tend not to be well integrated into the social structures of many of their home communities:

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[44] G. D. Spindler, "Education in a Transforming American Culture," Harvard Educational Review, 25 (1955), 145-156.

> . . . in many respects they are sociological strangers who remain outside the basic class structure of the community. Often suspected, criticized, morally scrutinized, and excluded from political and community leadership positions, teachers hardly represent the core of the middle-class community.[45]

Regardless of teacher origin or current status, it is, nevertheless, necessary to emphasize the point that there is nothing intrinsic in the background factor per se which would lead to a patterned teacher bias totally apart from the possession of class-related values. In this respect, Allport's pronouncement is relevant:

> Nothing ever causes behavior excepting mental sets (including habits, attitudes, motives). . . . Background factors never directly cause behavior; they cause attitudes, and attitudes, in turn, determine behavior.[46]

Thus let us now consider what class-related values and characteristic attitudes have been attributed to the teacher population over time. Sexton, for example, recognizes the legitimacy of Allport's statement with respect to teachers' value orientation. She argues that the social origins of teachers should be a secondary concern, subordinant to the importance of class-based values which they may espouse. She goes on to name these values:

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[45] Ronald G. Corwin, A Sociology of Education (New York: Appleton-Century-Crofts, 1966). See especially pp. 178-179.

[46] Gordon W. Allport, "Review of the American Soldier," Journal of Abnormal and Social Psychology, 45 (1950), 177.

> What is more behavior-determining than class origin, however, is the class orientation of the teacher. Here the evidence is that teachers, in certain vital matters, have a class outlook very similar to that of upper-income groups and quite unlike that of "urban labor" groups.[47]

Sexton interprets this finding to mean that teachers may give low recognition to the claims of lower-income groups to equal educational opportunity and be biased in favor of students from upper-income groups.

Some researchers have found that teachers' salient attitudes to education are unrelated to their initial social class origin or even their present status. They favor such variables as type of college education and teaching experience,[48] community size and teacher self-image,[49] and personality and contextual variables.[50]

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[47] Sexton, op. cit., p. 239. A similar conservative bias among teachers was found by Sims. See, V. M. Sims, "Social Class Affiliation of a Group of Public School Teachers," School Review, 59 (September, 1951), 331-338. Attitudes of various occupational groups were compared using the classification schema advanced by Richard Centers, The Psychology of Social Classes (Princeton: Princeton University, 1949).

[48] W. C. Wilson and G. W. Goethals, "The Relationship between Teachers' Backgrounds and Their Educational Values," Journal of Educational Psychology, 51 (1960), 292-298. Educational deprivation was not the focus of their research, but there is reason to believe that one's educational philosophy may be related to one's response to the plight of the culturally disadvantaged child.

Other researchers focused primarily on the identification of dimensions of teacher attitudes rather than addressing themselves to the issue of social class relatedness. Remers and Steinberg,[51] for example, considered the matter of teacher authoritarianism. Their sample included university as well as high school teachers. Their findings proved inconclusive with respect to both populations.

Prince[52] and McPhee,[53] using the same instrument in two independent studies in the Midwest, reached the same conclusion with respect to traditionalism among teachers, administrators, and laymen. Age was the variable most strongly associated with traditionalism in each group. Thus a conservative bias may be relevant to the value orientations only with respect to older teachers.

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[49] Neal Gross, Who Runs Our Schools? (New York: John Wiley and Sons, Inc., 1958). Although Gross' study considers primarily decision-making policies among school board members and school superintendents, it deserves our attention. School personnel with shared social class based values were seen to differ radically with respect to various educational issues. Thus there is a need to explain their value positions with reference to other than the social class to which they belong. This task, however, is beyond the scope of Gross' study.

[50] W. W. Charters, Jr. "Social Class Analysis and Control of Public Education," Harvard Educational Review, 23 (1953), pp. 268-283. The subjects of his study were school personnel in general, rather than teachers per se.

[51] H. H. Remers and M. Steinberg, "Relationship between 8 Variables and 'F' Scores of Teachers," Journal of Educational Psychology, 45 (1954), 427-431.

[52] R. Prince, "Individual Values and Administrative Effectiveness," Administrative Notebook, 7 (1959), 1-4.

[53] R. F. McPhee, "Individual Values, Educational Viewpoints, and Local School Approval," Administrative Notebook, 6 (1957), 1-4.

From the perspective of the student, teacher values and attitudes are relevant only to the extent in which they influence classroom behavior. There have been few empirical attempts to decisively relate that which takes place in the classroom to the core identities of the teacher. This proposed association is especially difficult to study because it is shrouded in the principles of academic freedom and emotionally tinged issues--"Shall a Communist teach our children social studies?"

Aside from considerations of subject matter, a teachers' values are thought to most strongly influence the punishment and reward system in the classroom.[54]

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[54] *Cf.*, Jules Henry, "Docility, or Giving the Teacher What She Wants," *Journal of Social Issues*, 11 (1955), 33-41; W. J. Meyer and G. G. Thompson, "Sex Differences in the Distribution of Teacher Approval and Disapproval among Sixth Grade Children," *Journal of Educational Psychology*, 47 (1956), 385-396. Differential expectations for boys and girls colored the nature of classroom rewards and punishments for both groups. Teacher stereotyped definitions of "successful" pupils, Lambert found, have a similar result with respect to the flow of interaction in the classroom. See, P. Lambert, "The 'Successful' Child: Some Implications of Teacher Stereotyping," *Journal of Educational Research*, 56 (1963), 551-553.

Furthermore, a study by Anderson[55] reveals that a teacher's morale may be related to the actual achievements of the students. Teachers with low morale were found to have lower advances in student achievement than teachers with high morale. In a similar vein, Ryans[56] scored teachers on such dimensions of personality as warm/aloof and responsible/evasive. No simple relationship was found between teacher behavior in the classroom and the following characteristics: age, sex, marital status, and religious participation.

Perhaps the personality characteristic most often the focus of occupational studies is job satisfaction. This tends also to be the case with respect to teachers.[57] Katzell,[58] for example, is of the opinion that job satisfaction tends to be generally related to level of work performance. He points out that one's basic values may be expected to both influence and be changed by job-related experiences and subsequent commitment. Implicit agreement with respect to this position exists throughout the literature.

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[55] W. F. Anderson, "Teacher Morale and Student Achievement," Journal of Educational Research, 46 (1953), 693-698.

[56] D. G. Ryans, Characteristics of Teachers (Washington, D.C.: American Council of Education, 1960).

[57] Occupational commitment as a theoretical construct and its implications in the field of education are discussed by Blanche Geer, in "Occupational Commitment and the Teaching Profession," School Review, 74 (1966), 31-47.

[58] Raymond A. Katzell, "Personal Values, Job Satisfaction, and Job Behavior in Man in a World of Work, Henry Borrow, (ed.) (Boston: Houghton, Mifflin, 1964, pp. 341-363.

Turning to specific studies utilizing the job satisfaction variable, we find it stated that women are better adapted to the teaching situation than men,[59] Negroes are better satisfied teachers than whites,[60] and job satisfaction decreases with years experience.[61] These findings are mentioned in passing to convey research concerns rather than to suggest that they are invariant, universal findings.

S. Rettig and B. Pasamanick[62] studied teacher esteem in a sample of forty teachers derived from two high schools. They compared teacher esteem with those of other semi-professionals--nurses and social workers, both also traditionally female occupational groups. They found teachers to be the most concerned with their "professional standing." Teachers tended to accord a lower status evaluation to their own occupation than did a group of 110 laymen. This study did not attempt to treat within group variance.

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[59] Burton R. Clark, "The Sociology of Education," in the Handbook of Modern Sociology, R. E. L. Faris, (ed.) (Chicago: Rand McNally, 1964). Sex is named as the best determinant of career activity as well as morale. Sex role definitions existing both within the context of the school and the larger society are called upon to account for the suspected differences.

[60] David Gottlieb, "Teaching and Students: The Views of Negro and White Teachers," Sociology of Education, 37 (Summer, 1964), 350-351.

[61] Idem.

[62] S. Rettig and B. Pasamanick, "Status and Job Satisfaction of Public School Teachers," School and Society, 87 (1959), 113-116.

A study by the National Education Association[63] in 1963 revealed that three-fourths of the teachers in the survey would "certainly" or "probably" choose teaching as a career were they given the hypothetical chance to "start over." The most frequently cited source of job satisfaction was the teacher-pupil relationship. A somewhat paradoxical finding was reported. Satisfaction tended to be higher in those groups comprised of members with lower professional status.

Cohen[64] attempts an interpretation of the above study within a social psychological frame of reference. She suggests that teachers differing with respect to social status also differ with respect to reference group membership. Those teachers with relatively low social status may compare themselves with job situations of non-professionals; in the light of this comparison, teachers are in a favored position. On the other hand, if teachers compare their prestige and work situation with that of full-fledged professionals, the comparison is invidious.

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[63] National Education Association, Research Division, The American Public School Teacher, 1960-1961. Research Monograph 1963-M2 (Washington, D.C., April, 1963). This report also concluded that job satisfaction tended to be higher in the female teacher population.

[64] Elizabeth G. Cohen, "Status of Teachers," Review of Educational Research, 36, 3 (June, 1967).

Job satisfaction may be firmly rooted in the attitude of the teacher to the local school administration. Geer devotes her attention to an examination of the role the school administration plays in governing the teacher/pupil relationship.

> As an employee, the schoolteacher's relationship to his clients--his pupils and their parents--is mediated by the school administration. The teacher-client relationship is involuntary on both sides. With rare exceptions, pupils do not choose their teachers, nor teachers their pupils.[65]

Thus the school administration may function not only with respect to appointments, but also with respect to more subtle matters of policy which may have the net effect of influencing teacher morale, and, in turn, the quality of their exchange with students. This is to say professional values and attitudes must be taken into account as well as personal and class-based values if we are to fathom the complexities surrounding the teacher's role in the educational deprivation syndrome.

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[65] Geer, op. cit., p. 38.

In conclusion it may be said that while accepting the premise that the lower class child is in a disadvantaged position in the classroom, several prominent educational sociologists have challenged the argument that the problem is compounded by a systematic teacher bias stemming from either their middle class values or social origins. Gross, for example, objects to existing research primarily on the basis of sample limitations. It is his opinion that the case for a middle class teacher bias rests:

> primarily on findings that emerged from several studies conducted in relatively small and static communities. The extent to which the findings of these studies apply to metropolitan or other types of communities is problematic.[66]

Charters, on the other hand, raises a more fundamental objection with respect to the present body of research--viz., the lack of possible explanatory variables to be substituted in place of middle class values. In suggesting the need for further research, he submits:

> the greatest fruit will be borne by research which pits the assumption that middle-class values determine teacher behavior against one or more competing assumptions concerning the source of teachers' classroom standards.[67]

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[66] Neal Gross, "The Sociology of Education," in Sociology Today (eds.), R. K. Merton, Leonard Broom, and L. S. Cottrell, Jr. (New York: Basic Books, 1959), p. 148.

[67] Charters, op. cit., p. 739. The plea for additional variables also finds expression in Corwin, op. cit., see especially, p. 179.

The need for further research is evident with respect to the importance of understanding the role of the teacher in the education of children from low income families. The present study is in response to the above challenges to existing research and attempts to develop a more extensive model of the sources of teacher antipathy *vis à vis* the lower class child.

# II. OBJECTIVES

## A. The Conceptual Model

The above literature review provides the basis of the research objectives. The conceptual model (pictured diagramatically in Figure 2) is offered as representing the major factors to be investigated in the proposed study. The model incorporates variables and assumptions derived from the literature. However, it attempts to transcend the limits of previous research by the inclusion of previously neglected variables and relationships between variables. The model is presented in the form of a causal nexus, specifying clusters of variables which are expected to covary.

### 1. Explanation of the Model

The "preconditional" variables in the study are the social origins and teaching backgrounds of the teachers. Primary "independent" variables are values based on socio-economic status, orientation to others, and professional attitudes. Poverty experiences are predicted to "intervene" in the relationship between teachers' values and poverty attitudes. The model posits two major "dependent" variables: (1) attitudes toward the poverty group and (2) attitudes toward the educational problems of poverty students. A third major "dependent" variable,

FIGURE 2. CONCEPTUAL MODEL

| Preconditional Variables | Independent Variables | Intervening Variable | Dependent Variables | Consequent Variable |
|---|---|---|---|---|
| 1. Background | 1. Class-based Values | 1. Poverty Experience | 1. Poverty Group Attitudes | 1. Evaluation of Training Program |
| 2. Current Status | 2. Other-Oriented Values | | 2. Poverty Pupil Attitudes | |
| 3. Professional Values | 3. Professional Values | | | |

considered in the diagram to be a "consequence" of the two previous dependent variables, is receptivity to and attitudes toward a social action program.[1]

According to this model, individual differences of teachers with respect to social origins and current personal and professional status will find expression in the development of varied personal and professional values. These values, in turn, will be seen to lead to the development of general and specific attitudes related to poverty. The relationships between values and poverty attitudes will be modified and conditioned by the degree to which the teacher has been exposed to poverty.

It will be noted that the model does not posit necessarily direct linkages between demographic and status characteristics and the poverty variables. Indeed, a major problem noted with respect to existing literature is the frequent insistence upon such direct connection. It is to be expected, however, that there will be direct relationship between certain aspects of the background characteristics and exposure to poverty--in fact, this is somewhat tautological.

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[1] This project known as SUCCEED (School-University-College-and-Community Enterprise for Educational Development) had the goal of training teachers to relate to and motivate socially alienated youths, comming from the culture of poverty, to stay in school. SUCCEED assisted school cadres, composed of principals, counselors, teachers, and community liaisons, who attended summer workshops at the University of Pittsburgh, to develop in-service training programs.

The theoretical importance of many of the variables in the conceptual model is evident from the discussion of the literature bearing upon the problem. The rationale for selection of other elements requires some amplification.

The reviewed literature provides justification for consideration of the "class-related" values. Moreover, the single most frequent theme in the teacher-poverty pupil literature is the value class between the middle class teacher and the lower class child. Additional empirical test of this clash is provided within the framework of the model.

There are reasons to believe that discriminatory attitudes toward the poverty group, in general, and pupils from poverty backgrounds, in particular, may be related to underlying response tendencies affecting the teachers' perceptions and reactions to others. We are concerned here with tendencies toward rigid, stereotyped thinking involving ascriptive evaluations of others without necessary experiential input. To the extent that teachers' perceptions of others are colored by ascriptive moral judgments, we predict a tendency toward generalization of evaluation to include those in the poverty category.[2]

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[2] Cf. the work of Adorno et al. The Authoritarian Personality (New York: Harper, 1950); Milton Rokeach, The Open and Closed Mind (New York: Basic Books, 1960); Gordon W. Allport, The Nature of Prejudice (Cambridge,

Professional values are potentially important in the teacher-student interaction in the general case as has been noted in the literature discussion. With respect to teacher-poverty student attitudes, it is also believed that these values will be important. No connection between professional values and poverty group attitudes per se are expected; however, attitude toward poverty students occurs within the professional context of teaching and hence should be related to professional values.

Previous research has not given adequate consideration to the effect of direct poverty experience upon the formation of teachers' attitudes toward poverty. While stereotyped attitudes can prevail in the absence of direct contact with the group involved, contact can have considerable impact upon these attitudes. It is not possible to state that contact will always result in more or less hostility, since the effect hinges upon the individual's prior attitudinal position. However, contact and experience are important phenomena and should be examined in terms of its impact upon individuals with varying value positions.

The model differentiates between attitudes toward the poverty group in general and attitudes toward poverty pupils within the educational context. Previous research

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Mass.: Addison-Wesley Publishing Co., 1954); Gardener Murphy, In the Minds of Men (New York: Basic Books, 1953); Peter Rose, They and We (New York: Random House, 1964).

has often confused the issue by treating these two attitudes as if they were totally identical. It is assumed that there will be a high degree of association between the two variables. However, such association will not be complete and each variable warrants study in its own right. The rationale for inclusion of the consequent variable will be developed in Chapter 7, since it is somewhat parenthetical to the present argument.

The various dimensions of the variables which have been discussed with respect to the conceptual model will be given more detailed treatment in the discussion of the specific analytic model. Operational hypotheses will also be presented at that time.

## B. Procedures

### 1. The Population

Teachers from ten junior and senior high schools in the four county Pittsburgh metropolitan area employed during the school year, 1956-1966, comprise the population for the present study. Eight of the schools were participants in the SUCCEED program referred to previously. The remaining two schools were chosen to broaden the sampling base and to permit comparisons between participants and non-participants in the program. These schools represent various types of communities with differing proportions of poverty and non-poverty students. Figure 3 presents the

FIGURE 3. SCHOOL DESCRIPTION

| | School | Location | Number of Teachers |
|---|---|---|---|
| 1. | *Beaver Falls Jr. | Small industrial city | 40 |
| 2. | *Beaver Falls Sr. | Small industrial city | 58 |
| 3. | *Ross Jr. | Suburban, white collar | 32 |
| 4. | *North Hills Sr. | Suburban, white collar | 68 |
| 5. | *Wood St. Jr. | "Mill town" | 20 |
| 6. | *Har-Brack Sr. | "Mill town" | 35 |
| 7. | *Hurst Jr. | Semi-rural | 22 |
| 8. | *Mt. Pleasant Sr. | Semi-rural | 38 |
| 9. | Freedom Jr;Sr. | Suburban, blue collar | 48 |
| 10. | W. Allegheny Jr; Sr. | Suburban, blue collar | 39 |
| | | Total | 400 |

*Participants in Project SUCCEED

nature of the schools and the number of teachers in each for whom data were obtained.

The sample is representative of the population of the ten schools since essentially all teachers in the schools are included in the sample. No claims are made for representativeness of the sample in terms of a larger universe. There are, no doubt, idiosyncratic elements in the sample, peculiar to the schools and communities chosen. However, it is argued that the processes and patterns of relationships observed in the present sample might well be representative of those which would be found in similar studies of teacher populations.

The teacher population is described in terms of major demographic and status characteristics in Appendix A.

The design of the research is discussed in the following subsection.

## 2. Research Design

This study is part of a larger one conducted jointly by the Learning Research and Development Center and the Department of Sociology, the University of Pittsburgh.[3] A questionnaire survey is the primary means of data collection of both our study and the larger one.

All aspects of the larger study (including the present research) were originally planned to utilize the "panel" analysis approach in which data are obtained from the same respondents at two or more discrete points in time. This design is particularly appropriate for determining attitude change over time. As Stouffer has pointed out, panel analysis permits the closest approximation to the classic experimental design.[4] However, six of the eight SUCCEED schools severed their connection with the project and it was not possible to obtain data at the second point in time. Thus the data in this study are restricted to one sampling of respondents' attitudes.

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[3] The basic and applied research project is entitled "The Relationship between Poverty and Educational Deprivation," under the direction of Edward A. Suchman, Professor of Sociology, and funded jointly by the United States Office of Education (Grant Number OEC-1-6-061254-0809) and the Learning Research and Development Center of the University of Pittsburgh.

[4] Samuel Stouffer, "Some Observations on Study Design," American Journal of Sociology, 60 (January, 1950), pp. 355-361.

The absence of sequential time data, while unfortunate, is not fatal to the study. However, instrumentation assumes an even more central role since the success of the study hinges upon sampling in a single time point.

## 3. Data and Instrumentation

Considerable attention was given to the construction of the instrument. A survey project of this type depends upon the existence of a reliable and valid questionnaire. Other studies of teachers were reviewed and their questionnaires analyzed for relevant scales and indices. Questions of particular relevance to the problem of poverty and educational deprivation were constructed. The result of the preliminary work was the development of a comprehensive questionnaire.

The questionnaires were administered to a pretest group of 90 teachers. The results of the pretest were analyzed to determine the clarity, relevance, reliability, and validity of the various questions and scales. On the basis of this pretest, the final questionnaire was developed. The average time necessary to respond to the questionnaire was approximately one hour.

The instrument was group administered during the fall and winter of the school year, 1965-66. Every effort was made to elicit maximum respondent cooperation. Anonymity was promised in an attempt to assure valid responses. After completing the instrument, the teacher placed the questionnaire in a sealed envelope which was returned to the researcher.

Since the instrument was precoded, transfer of the information to IBM cards was accomplished with little possibility of coder error. The cards were cleaned, edited, and transferred onto binary magnetic tape for analysis using the IBM 7090 computer.[5]

## 4. Index Construction

A primary consideration in empirical research is the establishment of indices of the variables being examined and inter-related. The abundance of data must be classified according to relevant dimensions and reduced to form parsimonious indicators to insure precision and clarity. Merton expresses this necessity:

> For a basic requirement of research is that the concepts, the variables, be defined with sufficient clarity to enable the research to procede. . . . If he (the researcher) is not to be blocked at the outset, he must devise indices which are observable, fairly percise, and meticulously clear. The entire movement of thought which was christened 'operationalism' is only one conspicuous case of the researcher demanding that concepts be defined clearly enough for him to go to work.[6]

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[5] All data processing and the majority of the analysis was performed on the IBM 7090 computer at the University of Pittsburgh Computation and Data Processing Center and was partially supported by NSF Grant G11309.

[6] Robert C. Merton, "The Bearing of Empirical Research upon the Development of Social Theory," American Sociological Review, 13, 5 (October, 1948), p. 514.

Although considerations of construct validity and parsimony made it desirable to utilize composite indices representing all major attitudinal variables, much demographic and background information was reasonably handled as single-item scores. The response categories of these variables were collapsed to produce usable nominal or ordinal scales with marginal stability. These items with their response frequencies are reproduced in Appendix A.

Parental occupation and educational level were weighted and combined in accordance with the procedure reported by Hollingshead[7] to produce an objective socioeconomic index of family origin. The frequency distributions of the original variables, the item weights, and the final distribution of the objective SES measure are reported in Appendix B.

Unidimensionality of all other variables was determined by factor analysis[8] and/or Guttman scale analysis.[9] The items which comprise the various scales, the distributions of responses to the items, the distributions of collapsed category frequencies, and summary statistics of internal consistency are presented in Appendix B. Substantive discussion of these indices and the relationships existing between indices of the same conceptual type will be subsumed under the elaboration of the analytical model.

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[7] August B. Hollingshead, "Two Factor Index of Socio-economic Status," mimeographed.

[8] The varimax factor analysis was primarily performed with the General Factor Analysis program developed by the UCLA Biomedical program staff.

[9] Scale analysis was performed primarily with the algorithm developed by the UCLA group which utilizes the Cornell technique. The Multiple Scalogram Analysis routine developed by James Lingoes of the University of Michigan was utilized to a limited extent as was a "heuristic" routine for time-sharing systems developed by the author.

### 5. Analysis

Preliminary analysis utilized various parametric multi-variate procedures. Factor, canonical, and multiple regression analysis were instrumental in unraveling the important "causal" patterns in the data. The power, speed, and relative inexpense of these techniques argue strongly for their use--particularly in the initial phase of research.

However useful these procedures are for determining existing order within complex data, they are inferior to tabular analysis for presentation of relationships.[10]

> Once the three or four most important variables have been identified and their causal status made plausible, then showing their joint distribution in a multi-variate table allows the analyst to describe their patterns of interaction in greater detail than with the more elaborate statistical techniques. Furthermore, and this is perhaps the strongest

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[10] A balanced comparison and criticism of tabular and multi-variate procedures is offered by Travis Hirschi and Hanan C. Selvin, Delinquency Research: An Appraisal of Analytic Methods (New York: The Free Press, 1967), pp. 143-171.

> reason for keeping tables as devices of presentation, both the lay reader and the social scientist will find them easier to understand.[11]

Thus, the major analytic mode used in the present research is the bivariate frequency distribution presented in tabular, percentage form. This procedure is too widely used and accepted to require elaboration. Supplementing the basic zero-order tabular analysis, however, are higher-order tables which require some comment.

There are three different forms of higher-order tables used in this study. The first type examines the basic $r_{xy}$ by demographic or "control" variables to determine if the relationship holds for all major subgroups of the population; the second form is intervening variable analysis or specificational analysis which examines the original relationship in the light of variable(s) thought to intervene between "x" and "y." The third type is conjoint analysis in which the third variable is not a test factor, but rather is considered a parallel independent variable; the major question to be answered becomes: "what is the nature of the simultaneous influence of "x" and "t" on "y?".

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[11] _Ibid_., p. 171.

[12] For a comprehensive treatment of the differences and similarities between these multi-variate models, see Morris Rosenberg, _The Logic of Survey Analysis_, unpublished manuscript, National Institute of Mental Health, 1966.

Comment is in order about tests of significance in the present research. All differences in percentages reported in this study were tested for statistical significance using the chi square test; statistically significant differences are noted. There are numerous reasons why significance testing might be unnecessary or even methodologically unsound in the present context.

First, there is no population to which statistical generalization from the sample will be made. With the exception of some few uncooperative or absent teachers, the sample represents the total teaching population of the ten schools in the study. Thus, all differences observed are real and are true of the total population--subject, of course, to measurement error.

Second, there exists an impressive body of methodological literature which argues that significance testing is generally inappropriate for survey analysis because of the inability to meet the conditions necessary for using such tests. The conditions include the problem of correlated biases, "gerrymandering" of cutting points, and the question of the proper interpretation of test results.[13]

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[13] Cf. James S. Coleman, "Statistical Problems," Appendix I-B in Seymour M. Lipset, Martin Trow, and James S. Coleman, Union Democracy (Glencoe: The Free Press, 1956), pp. 427-432; Patricia L. Kendall, "Methodological Appendix," in Robert K. Merton, George S. Reader, and Patricia L. Kendall (eds.), The Student Physician,

Without attempting to dispute the logic of either of these two objections, significance testing can be justified on purely pragmatic grounds. There is first a relationship between statistical significance and magnitude of association. Non-parametric significance tests may be utilized, heuristically, as analogues to parametric measures of association to determine the magnitude of association between variables. Since statistically insignificant differences may be nonetheless real and substantively important, both the researcher and the reader may utilize significance tests, again heuristically, in an attempt to "separate the wheat from the chaff."

In sum, significance tests do not control totally the acceptance of results in the present study; they are, however, used as tentative guidelines to interpretation.

The model for analysis presentation will be discussed in the next section. The operational hypotheses which guide the actual analysis will also be presented.

## C. The Analytic Model

Figure 4 presents the analytic model which has been derived from the conceptual model using techniques

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(Cambridge: Harvard University Press, 1957); Hanan C. Selvin, "A Critique of Tests of Significance in Survey Research," American Sociological Review, 22, 5 (October, 1957), pp. 519-527; Herman Wold, "Causal Inference from Observational Data," Journal of the Royal Statistical Society, (A), 119, Part I (1956), pp. 28-50.

FIGURE 4. ANALYTICAL MODEL

| Preconditional Variables | Independent Variables | Intervening Variables | Dependent Variables | Consequent Variable |
|---|---|---|---|---|
| 1. Background<br>A. Socio-economic status<br>B. Religion | 1. Class-Based Values<br>A. Traditional propriety<br>B. Work-success ethic | 1. Poverty Experience<br>A. Exposure level<br>B. Information level | 1. Poverty Group Attitudes | 1. Evaluation of Training Program |
| 2. Current Status<br>A. Sex<br>B. Income<br>C. Age | 2. Other-Oriented Values<br>A. Prejudice<br>B. Inter-personal alienation |  | 2. Poverty Pupil Attitudes |  |
| 3. Professional Status<br>A. Years experience<br>B. Highest degree | 3. Professional Values<br>A. Job satisfaction<br>B. Attitude toward administration |  |  |  |

index construction discussed above. The relationships between the indices have been examined in the light of this model. Before proceeding to the results of the analysis, however, it is necessary to examine the operational definitions of the variables in the model and to consider the working hypotheses which have been tested by analysis.

### 1. Operational Definitions of Indicators

a. Indices of Background and Status Characteristics. The Hollingshead score used in the evaluation of the "objective" socio-economic status of the teacher's family of origin is defined in Appendix B. All other background and status variables are defined by single item scores and are presented in Appendix A.

The rationale for the selection of these variables is twofold: first, these attributes identified as potentially predictive of the establishment and retention of values and attitudes in general[14] are included. Second, those status characteristics cited in the above literature review as being relevant or potentially relevant to the establishment of teachers' attitudes in particular were also chosen.

While no claim is made for the consideration of all potentially relevant preconditional factors, it is believed that the more important potential factors have been examined. It will be noted that Appendix A contains several items not utilized in the analytic framework. These are presented primarily for purposes of sample description, since analysis has taken them into account and excluded them as irrelevant or redundant within the causal nexus.

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[14] Cf. Berelson and Steiner, op. cit., Ch. 14, "Opinions, Attitudes, and Beliefs," pp. 557-583.

b. Indices of Middle Class Values. Two Guttman scales were developed to tap the complex domain of value patterns believed to be typically "middle class." The items utilized in these scales are given in Appendix B. The two scales are believed to represent the dimensions of "work-success ethic"[15] and "traditional etiquette or decorum"[16] respectively. The first scale is used as an index of values regarding striving or success orientation, while the second is used to represent orientation toward traditional "manners." Certainly, these two scales do not represent the total range of values considered to "belong" to the middle class. However, they do represent two relevant dimensions of the value complex.

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[15] The "work success ethic," central to the middle-class value pattern is described, for example, in Hyman, "The Value Systems of Different Classes," in R. Bendix and S. M. Lipset (eds.) Class, Status, and Power (Glencoe: The Free Press, 1953), pp. 426-442.

[16] Loeb names "propriety" as one of the major characteristics of the middle-class culture: the culture which provides the single standard of behavior in the schools. See Martin B. Loeb, "Implications of Status Differentiation for Personal and Social Development," Harvard Educational Review, 23, 3 (Summer, 1953), 168-174.

No causal relationship is implied between the two variables directly. It is argued that the correlation between the two is due to an underlying, hypothetical factor which might be termed "middle-classness." Sixty per cent of teachers who are classified as traditional are oriented strongly toward success, as compared with 45 per cent of the non-traditional teachers. Percentaging in the opposite direction, 49 per cent of the success-oriented teachers are traditional, as compared with 34 per cent of the non-success-oriented group. We conclude that although there is a significant association between the two variables the relationship is low enough to permit separate consideration of both dimensions.

c. Indices of "Other-Orientation." The two scales representing orientation toward others are defined operationally in Appendix B. The scale "Prejudice" is composed of items tapping teachers' racial and ethnic prejudice, while the other scale purports to measure inter-personal alienation. Although these two scales might, at first glance, appear to be totally independent, it is argued that they have many common characteristics. Both prejudice and alienation from others involve boundary maintaining processes. Both involve stereotyping or ascriptive evaluation--in the one case, racial minorities are inferior; in the other, people are not to be trusted.

Both traits are response sets for judgment of and orientation to others.

Looking at the association between the two variables we find that fifty-nine per cent of alienated teachers are prejudiced, compared with 43 per cent of non-alienated teachers. Conversely, 63 per cent of prejudiced teachers are characterized by inter-personal alienation, as opposed to 46 per cent of the non-prejudiced teachers. While a simple causal relationship between the two variables is not implied, it is highly probable that they tend to reinforce each other. Once again relationship is low enough to permit individual consideration.

d. Indices of Education Related Values. The two scales developed to tap teachers' values and attitudes with respect to education are presented in Appendix B. One scale, Attitude toward the School Administration, purports to measure teachers' evaluation of the local school administration; to a certain extent, it is an index of "local" job satisfaction. The second scale, "Professional Job Satisfaction," is used as an index of teachers' evaluation of teaching as an occupation, a more "cosmopolitan" index.

The two measures are correlated .21, measured by product--moment coefficient. Sixty-nine per cent of teachers classified as "high" professional job satisfaction are favorable toward the school administration, as opposed to 40 per cent of teachers who are "low" in job satisfaction. Conversely, forty per cent of teachers who favor the school administration are coded "high" in professional satisfaction, compared with 27 per cent of teachers classified "low." It is believed that the two variables interact causally, with teachers who like teaching tending to view the local scene in a favorable light, and with satisfaction in the local setting giving rise to increased probability of liking teaching as a career. It is quite likely that these two measures are "indicative" of a more general concept of work morale.

e. Indices of Experience Related to Educational Problems Connected with Poverty. The two scales developed to assess experience with poverty connected educational problems are operationally defined in Appendix B. The scale "Exposure" attempts to determine actual experience with children from poverty backgrounds, while "Level of Information" purports to tap the teachers' assessment of their knowledge of poverty-related educational phenomena.

The two measures are related to a moderately high degree, with the coefficient of correlation being .39. Seventy-five per cent of teachers with a high degree of poverty exposure consider themselves informed, as opposed to 36 per cent of teachers with a low degree of exposure. It is argued that, although there is extensive interaction between the two variables, it is probable that exposure

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precedes information. Exposure to the actual educational problems connected with poverty may reveal inadequacies in existing knowledge, giving rise to information seeking. There is also the tendency for exposure to a situation to lead one to believe that he is an "expert" on the matter. Given the high relationship between the two scales, it is very likely that any correlation with the dependent variables by one will be substantially duplicated by the other.

f. Indices of Attitudes Toward the Poverty Group and the Educational Problems of Poverty Group Pupils. A major problem dealt with in the present research is the determination of the nature of teacher attitudes toward poverty group members and toward the educational problems associated with poverty. Although teacher attitudes have been discussed with high frequency in the literature, the attitudes have been ill-defined and poorly measured; there have been no rigorous attempts to measure the dimensions of poverty attitudes, or indeed, even to assess the number of relevant dimensions.

It is naive to assume that "poverty attitude" is a simple unitary phenomena. Numerous questions suggest themselves concerning the nature of teachers' poverty group and poverty pupil educational attitudes. To what extent do teachers' poverty attitudes form unidimensional scales? How many relevant dimensions exist? Are the various dimensions orthogonal or are they highly correlated? What causal linkages exist between the various dimensions? Is teacher attitude toward the poverty group identical with teacher attitude toward students from poverty backgrounds? Can a teacher's attitude toward the educational deprivation of proverty students be predicted from knowledge of her attitude toward the poverty group? Are all the dimensions of teacher poverty attitude predicted equally by the same external variables?

The literature concerning the teacher and children from poverty backgrounds suggests that teachers hold different images of lower and middle class students. The data supporting these claims are highly erratic--in most cases limited to the presentation of quoted material taken from interviews with teachers. The extent to which teachers as a group express distinct patterns of images and expectations toward poverty students needs to be examined.

The present study has indicated that there is a clear pattern of views of poverty students held by teachers. This pattern holds in general for all subclasses of teachers. Teachers were asked to compare students from poverty backgrounds with students not from poverty backgrounds. They were presented a list of items which they were to indicate as characterizing either group. These data are presented below.

FIGURE 5. TEACHER COMPARISON OF POVERTY AND NON-POVERTY STUDENTS

| | Poverty Background | Non-Poverty Background | No Difference | Total Per cent |
|---|---|---|---|---|
| Negatively Loaded Items: | | | | |
| Antagonistic to school | 82 | 4 | 14 | 100 |
| Poorly adjusted | 79 | 3 | 18 | 100 |
| Cynical | 66 | 10 | 24 | 100 |
| Distrustful | 59 | 5 | 36 | 100 |
| Sullen | 72 | 5 | 23 | 100 |
| Impolite | 44 | 8 | 48 | 100 |
| Positively Loaded Items: | | | | |
| Highly ambitious | 3 | 80 | 17 | 100 |
| Honest | 8 | 40 | 52 | 100 |
| Respectful | 10 | 48 | 42 | 100 |
| Eager to learn | 6 | 64 | 30 | 100 |
| Neat | 4 | 80 | 16 | 100 |
| Idealistic | 7 | 75 | 18 | 100 |

N = 400

It is quite obvious that students from low income families were repeatedly rated more negatively, while the non-poverty children were judged in a consistently favorable light. Although one might be tempted to consider that these differential images of poverty and non-poverty students represents only teacher assessment of objective facts, it should be remembered:

> . . . A moral judgment--no matter how much we may agree with it, cannot be a substitute for the proper study of causes.[17]

In addition the "self-fulfilling prophesy" implications of the clear-cut stereotype should not be ignored.

Although the pattern of teacher stereotyping of poverty students is quite consistent and important in terms of the possible definitionally prophetic implications, the items themselves are of limited utility as variables to be explained. There is little variance in the items, i.e., teacher agreement is quite high regardless of the subgroups into which the teachers may be divided. A more fruitful search for criteria of teacher poverty attitudes involves the use of more subjective, evaluative items which can be combined into unidimensional indices tapping a wide range of response variation permitting detailed causal analysis.

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[17] Robert M. MacIver, Social Causation (Boston: Ginn, 1942), p. 148.

Factor analysis and Guttman scale analysis were used in the determination and measurement of the dimensions of poverty attitude. Although numerous subdimensions of such attitude were found to exist, only the major three dimensions will be considered in this report; the findings are quite similar to the pattern emerging from consideration of all dimensions. This report will be concerned with attitude toward the poverty group, attitude toward the educational problems of poverty group students, and teacher receptivity to an in-service training program designed to aid teachers in coping with the educational problems of poverty students.[18] The relations between two of these dimensions will be considered below; training attitude will be discussed in a later chapter. Since the factor analytic technique by which these dimensions were identified maximized orthogonality between the variables in order to increase their validity as independent measures, the correlations between the variables are perhaps lower than if other techniques had been used.

Teachers who express favorable attitudes toward the poverty group tend to be more sympathetic to the educational problems of children from poverty backgrounds than are teachers who express negative attitudes toward the poverty group (66% vs. 49%). This relationship may be interpreted to indicate that there is a carry-over of value judgment expressed toward the poverty group as a whole to value judgment expressed toward the student subpopulation of the poverty group. In effect, "The sins of the parents are visited upon the children."

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[18] The operational indices of these three dimensions will be found in Appendix B.

2. Working Hypotheses of the Study

a. Hypotheses Relating Background and Status Characteristics to Poverty Experience and Attitudes:

(1) Socio-economic status is predicted to have no direct relationship with either of the poverty attitudes; on the other hand, it is hypothesized to be predictive of poverty exposure, with lower status teachers being characterized by greater exposure.

(2) With respect to religious origins, Catholic teachers are hypothesized to be more favorable toward the poverty group and to have greater exposure to poverty than Protestants.

(3) Males are hypothesized to have greater exposure to poverty than females. No sex differences in actual poverty attitudes are predicted.

(4) The older the teacher, the greater will be exposure to poverty and the more negative will be the poverty attitudes.

(5) With respect to educational status variables, teachers with extensive teaching experience are hypothesized to be characterized by high poverty exposure. Teachers with advanced educational degrees are predicted to be more sympathetic towards the educational problems of poverty youth than teachers without such degrees.

b. Hypotheses Relating Background and Status Characteristics to Personal and Professional Values:

(1) The higher the socio-economic origin of the teacher, the greater will be the orientation toward success, the insistence upon traditional standards of propriety, the degree of inter-personal alienation, and the level of dissatisfaction with the profession of teaching.

(2) With respect to religious origins, Protestants will tend to be more success-oriented and prejudiced than Catholics. Catholics, on the other hand, will tend to be more insistent upon traditional

standards of behavior decorum and will be characterized by greater interpersonal alienation.

(3) With respect to sex, males will tend toward greater success-orientation, alienation, prejudice, and job dissatisfaction.

(4) The older the teacher, the stronger the adherence to traditional standards of behavioral decorum.

(5) The stronger the commitment to education, as reflected by the possession of an advanced degree or extensive teaching experience, the greater will be the satisfaction with teaching and with the school administration.

c. Hypotheses Relating Values of Teachers to Poverty Attitudes:

(1) The stronger the identification of the teacher with such class-related values as success-orientation or traditional propriety, the more negative will be the attitude toward the poverty group and toward the educational problems of low-income youth.

(2) Teachers whose orientation to others is characterized by prejudice or interpersonal alienation will tend to be hostile toward the poverty group and unsympathetic toward the educational plight of poverty youth.

(3) Teachers who are dissatisfied with the teaching profession or negatively oriented toward the school administration will be negative toward pupils from poverty backgrounds.

(4) The above hypothesized relationships will be independent and cumulative in effect.

(5) The hypothesized relationships between values and poverty attitudes will be modified, in some cases, when examined for various demographic sub-groups of the population.

d. Hypotheses Related to the Effect of Poverty Experience:

(1) The higher the level of information concerning poverty or the degree of exposure to poverty, the more favorable will be the attitude of the teacher toward the poverty group and the more sympathetic the attitude toward poverty pupils.

(2) Teachers espousing the middle class values of success and behavioral decorum will be negative toward the poverty group, regardless of degree of poverty. Their sympathy with the educational problems of poverty youth, however, will be greater in the high exposure situation, than in conditions of low exposure.

(3) Teachers characterized by prejudice or inter-personal alienation will continue to remain hostile to poverty group and poverty pupils, regardless of experiential input.

e. Hypotheses Related to Receptivity to an In-Service Training Program:

(1) The more positive the teacher's professional values, the more favorable will be the attitude toward the training program.

(2) The higher the existing level of information about poverty and exposure to poverty, the more receptive the teacher toward training.

(3) The more favorable the teacher toward the poverty group and the more sympathetic toward the educational problems of low income youth, the more favorable will be

the response to the training program.

(4) The above hypothesized relationships will tend to be complex--even cancellative--when examined concurrently.

# III. THE RELATIONSHIP BETWEEN TEACHER BACKGROUND AND STATUS CHARACTERISTICS AND POVERTY EXPERIENCE AND ATTITUDES

## A. Background Characteristics

It has been noted in previous chapters that the literature relating socio-economic status of children and their educational opportunities is replete with references to teacher bias toward the lower class student. The teacher, typically stated to be of middle-class origin, is prejudiced against the lower class child and prefers the middle and upper-class student. With the exception of various community studies little empirical data exist testing or explaining this oft repeated finding. As was noted previously, there is an increasing body of literature which demonstrates that the middle-class origins of teachers is a myth--perhaps accurate several decades ago, but certainly no longer universally true. There exist no adequate data relating social class origins to teacher attitude toward the poverty group or the poverty pupil in the educational setting.

Table 1.01 presents the relationship between socio-economic origins of teachers and attitude toward the poverty group, the poverty student, and poverty information, and poverty exposure. Neither of the two SES indices used related significantly to either attitude toward the poverty group or toward the educational problems of the poverty students. There does appear a tendency for the teacher from high SES origins to be more negative toward the poverty group than the teacher from the lower SES category. For the Hollingshead scale, the percentage negative toward the poverty group is 51 per cent for the high status teachers, as compared with 42 per cent for the low SES teachers. Socio-economic status evidences a slight tendency in the opposite direction with respect to attitude toward the poverty pupil, with high status teachers being slightly less negative than low status ones (56 vs. 61 per cent for the Hollingshead index). It should be emphasized, however, that the strength as well as the direction of these relationships are not different from chance expectancy.

Social class origin is, however, related to teacher exposure to poverty. Although the Subjective SES index and the Hollingshead score give different patterns of relationship, both are significantly related to exposure. Social class as measured by the Hollingshead index is inversely related to exposure; the higher the class origin of the teacher, the lower the degree of exposure. Comparing "highs" and "lows," the percentages with high exposure scores are 36 and 54 respectively. It would thus appear that the teachers from upper SES origins are more "sheltered" in their existence and come into less experiential contact with poverty. While there are tautological elements in this relationship, it does appear that first-hand experience with poverty, and presumably with the attendant problems of poverty, is highest among teachers from the lower end of the social order. In the absence of strong, direct relations between SES and poverty attitudes, this linkage between SES and poverty will be exploited and interpreted in a later chapter through the use of intervening variable analysis.

Table 1.01 also presents the relationship between religious origin and attitude and exposure related to poverty. It is unfortunate that data are not available with respect to intensity of religious belief; the measure used was one of affiliation. While there exists no discussion in the literature of the role of religion in the determination of teacher attitude toward poverty specifically, the differences in attitude toward the poverty group between Protestants and Catholics are moderately strong. Fifty-three per cent of Protestants are negative toward the poverty group, as opposed to only 41 per cent of Catholics. Perhaps the difference between Protestants and Catholics with respect to attitude toward the poverty group mirrors the frequently demonstrated finding in opinion and voting research that Protestants tend to be more "conservative" than Catholics; particularly with respect to political affiliation.[1] It is also possible that Catholics, typically being from lower SES categories, would tend to identify more with the poverty group. This latter possibility will be considered later in this chapter.

Although the differences in attitude toward the poverty pupils by religion are not significant, it is interesting to note that they are in the same direction as attitude toward the poverty group. Sixty per cent of the Protestant teachers are unsympathetic to the educational problems of poverty pupils, as compared with 53 per cent of the teachers who are Catholics.

The relationship between religion and poverty exposure is statistically insignificant. It does appear, however, that Catholics are slightly more highly exposed to poverty than are Protestants (48 vs. 40 per cent). It is possible that this could result from the contamination of religion by SES.

Poverty Exposure is explained to a statistically significant degree by SES. Although religion is related to poverty group attitude, it appears from the abundance of "almost significant relationships" existing between religion and SES and the poverty attitude variables that multivariate tabular analysis should be utilized to illumine further the precise nature of the relationships existing in the data. This will be done in a later section of this chapter.

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[1] _Cf_. G. Lenski, _The Religious Factor_ (Garden City, New York: Doubleday, 1961); P. Lazarsfeld, B. Berelson and H. Gaudet, _The People's Choice_ (New York: Columbia University Press, 1948).

Poverty information is unexplained by either SES or religion. From the content of the information index, it is apparent that factors other than background characteristics should be utilized to explain information level.

## B. Current Status Characteristics

Table 1.02 presents the relations existing between teachers' current personal and professional status characteristics and the poverty variables. It will be noted that while several relationships approach statistical significance at the .05 level, there are few unequivocally significant relationships.

Looking first at the effect of sex of teacher upon poverty experiences and attitudes, it is evident that there is no relationship between sex and level of poverty information. While the relationship between sex and poverty exposure is not quite significant, males do evidence a greater degree of high exposure than females (46 vs. 36 per cent). Since in the teacher population in the present study, males are of lower SES origin than females, it is possible that the difference in exposure patterns is a function of SES differences. This possibility will be investigated in a later section of this chapter.

There is no relationship between sex and attitude toward the poverty group. The relationship between sex and attitude toward the educational problems of low income students approaches significance, however. Males are more negative than females (60 vs. 51 per cent). Since these sex differences are not statistically significant, they will not be discussed further at this time. However, sex will be reintroduced periodically throughout the remainder of this report, since there do appear to be basic differences between male and female teachers in the sample under analysis.

It is unfortunate that the income index used produced such a disproportionate number of cases in the middle category. With finer discrimination, it is quite probable that income would be a useful predictive index. Its present utility is hampered, however, by the "bad split." There is a tendency for teachers with high income to have higher information levels than teachers with low income (59 vs. 51 per cent); it is quite possible, however, that this relationship is due to the contamination of income with other variables, such as teaching experience or the possession of an advanced degree.

There is an 18 percentage point spread in exposure level between the high and the low income groups; 48 per cent of teachers in the high income group are classified as highly exposed to poverty, compared with only 30 per cent of teachers from the low income category. It will be noted that this relationship is diametrically opposed to that of SES of origin and poverty exposure.

The pattern of relationships existing between income and poverty attitudes is interesting, albeit statistically insignificant. Fifty-four per cent of teachers with high present incomes are rated negative toward the poverty group, compared with 47 and 35 per cent of the middle and low income teachers. In other words, the higher the income, the more negative the teacher toward the poverty group. This relationship is interesting, since the percentage differences are much more dramatic than in the case of the family SES indices. It would appear that there is some degree of economically based poverty group discrimination in operation. The relationship between income and attitudes toward the educational plight of low income students is in the same direction, although only 6 percentage points separate high and low income teachers. There is thus some evidence that poverty group discrimination by teachers is related to the teachers' economic state. However, the shape of the income distribution and the relative lack of variation is sufficient cause for exercising caution in the interpretation of the data.

Examining the effect of teacher age upon the poverty experience and attitude variables, it is noted that there is only one significant linear relationship. The bivariate frequency distribution of age and poverty information level indicates that teachers in the 25 to 39 age range have the highest information level; the remaining percentage differences are insignificant and small.

There is, however, a strong degree of linear association between age and poverty exposure. Fifty-four per cent of the "Over 40" teachers are rated highly exposed to poverty, compared with 42 and 27 per cent of the middle and young age categories. There is a fairly simple explanation for this relationship. The older the teacher the more time has been available in which exposure could occur and the more opportunities for exposure which may have been presented.

The relationship between age and poverty attitudes reveals no statistically significant patterns. There is essentially no difference in poverty group attitudes within the three age categories. A curvilinear relationship between age and attitude toward poverty pupils is noted in which the least negative attitudes are on the part of the 25-39 age category; the most negative group is the over 40 category with 61 per cent negative; young teachers fall midway between the two other groups with 56 per cent negative toward the pupils from poverty backgrounds.

It would be expected that number of years teaching experience would relate to the poverty variables in a manner similar to teacher age. With respect to poverty experiences, the predicted similarity is found.

Information is not significantly associated with years teaching, although teachers with 9 or more years teaching experience possess the greatest per cent of teachers with high information levels (56 per cent), compared with 49 per cent of the teachers with 2 years experience or less. This relationship seems quite reasonable in the light of the time required to obtain information; teachers with more experience have had more time in which to build their repertoire of information.

The relationship between age and poverty exposure is significant and in the expected direction. The greater the teaching experience, the greater the degree of poverty exposure. Forty-seven per cent of teachers with 9 or more years in the teaching profession were rated high on the exposure scale, compared with 30 per cent of teachers with less than two years experience. Again, this appears to be a composite function of chronological age and exposure acquired during the teaching career.

Teaching experience is not significantly related to either of the poverty attitude variables; neither of the relationships are even linear. Since years teaching is so irrevocably linked with chronlogical age, age will be used in higher order tables. It should be remembered, however, that age will then embrace teaching experience.

The last of the current status variables to be considered is advanced teacher education; the index used is the presence of an advanced (Master's level or more) degree. This variable is disappointing in its lack of effect. Although there is a slight tendency for teachers with advanced degrees to be more informed and exposed to poverty, there are absolutely no differences between teachers with advanced degrees and those without with respect to attitude toward the poverty group. There is a slight tendency for teachers with advanced degrees to be more sympathetic to the educational plight of the poverty pupil. None of these differences attain statistical significance, however. One would have predicted the effect of advanced educational training to have been more dramatic.

With the exception of poverty exposure which is strongly related to several of the background and current status variables, poverty variables--attitude and information--are predicted quite poorly by teacher demographic characteristics taken singly. However, it is relevant to ask what the combined effects of background and current status characteristics would be upon poverty attitudes. The final section of this chapter is addressed to an examination of possible interactive effect of these variables with respect to poverty attitudes.

## C. Multivariate Effects

Since the socio-economic and religious origins of teachers in the present sample are to some degree related, Table 1.03 presents the relationship between social class and the poverty attitudes by religion. It is evident that the linear relationship between SES and attitude toward the poverty group is increased in the Catholic subsample; the differences are still statistically insignificant, but a 13 percentage point split between High and Low SES Catholics is apparent, compared with a 9 point split for Protestants. Knowledge of religion contributes no increase in relationship between SES and attitude toward the educational problems of poverty pupils, however.

Table 1.04 introduces sex into the basic relationship between SES and poverty attitudes. Some interesting effects are noticed. There is no relationship between SES and poverty group attitudes for males. For females, however, dramatic and significant differences are seen to appear. Fifty-seven per cent of high SES females are hostile toward the poverty group, compared with 43 and 29 per cent for the middle and low SES categories; the percentage difference between high and low SES females is 28 points. Thus it may be stated that although the basic relationship between SES and poverty group attitude is minimal, for females the relationship is fairly large. A possible explanation for this relationship lies in the heightened sensitivity of females to SES values, a finding which has been previously reported in the literature.[2] Females are acutely aware of their own origins and judge others with self as the reference point.

The same table, however, indicates that SES and attitude toward poverty pupils is related only for males. The higher the SES origin of males, the more negative they are toward the educational problems of poverty group pupils; the percentage difference between high and low SES males is 32 points. This finding offers an interesting contrast to the SES/Poverty group attitude/sex relation discussed above, in which the basic relationship existed only for females.

It would appear that female teachers relate their own SES origins to the poverty group as a generic category, in other words generalized discrimination, while males relate their SES origins to more limited categories--in this case pupils from poverty backgrounds. Perhaps these differences reflect the basic role differences between males and females in the school. Males are perhaps more threatened by the student population; the degree of threat is perhaps dependent upon class origin, with upperclass males being downwardly mobile and perhaps vulnerable to student criticism.

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[2] _Cf_. Richard Centers, "Social Class Identification," _Journal of Personality_, 18 (1950), 290-302.

Table 1.05 presents the relationship between SES and poverty attitudes by age of teacher. Looking first at the relationship between SES and poverty group attitude within each age category, it is noticed that the relationship is linear in all cases; the higher the SES of origin, the more negative the attitude toward the poverty group. However, the relationship is statistically significant only for teachers over 39, with a 32 percentage point spread being observed. It is perhaps the case that older teachers are more imbued with class-related values and thus are more likely to practice SES discrimination.

Although the relationship between SES and attitude toward the educational problems of poverty youth is statistically significant for teachers under age 25, in no age category is there a linear relationship. The general pattern is quite inconsistent.

Summarizing the relationships between teacher background and current status variables and poverty variables, it may be said that poverty exposure is strongly determined by demographic factors. Poverty information is basically unrelated to any of the factors. Attitude toward the poverty group is related to certain background and current status characteristics of teachers under certain qualifying conditions. Attitude toward the educational problems of poverty pupils is essentially unrelated to any of the demographic variables. It would appear that the major potential links between the origins and status of teachers and poverty attitudes would lie with poverty exposure and personal and professional values which are perhaps strongly conditioned by the origins of teachers and, in turn, determine the poverty attitudes. The next chapter examines the relationship between background and status characteristics of teachers and personal and professional values.

## IV. THE EFFECT OF TEACHER BACKGROUND CHARACTERISTICS UPON PERSONAL AND PROFESSIONAL VALUES

Although the zero-order relationships between the background characteristics of teachers and poverty attitudes were seen to be minimal, it is hypothesized that these background characteristics may exercise an indirect influence upon poverty attitudes vis à vis other variables. One such possible mediating link in the causal chain which has previously been identified is the poverty exposure variable which was shown to be related to certain background characteristics. It is hypothesized that teacher background characteristics do indeed influence or determine personal and professional values which will, in turn, be demonstrated to lead to attitudes toward the poverty group and toward the educational problems of students from poverty backgrounds. The zero-order relationships between background characteristics and personal and professional values will first be examined, to be followed by some higher order relationships.

### A. Characteristics of Family of Origin

Table 2.01 indicates the relationships existing between social characteristics of the teacher's family of origin and personal and professional values. It will be noticed that nine of the 13 relationships presented are statistically significant. With the exception of attitude toward the school administration, each of the attitudinal variables is explained by one or more of these demographic factors.

Looking first at the effect of socio-economic characteristics, we find that both the subjective socioeconomic status index and the Hollingshead Two-Factor Score give essentially the same picture. Both indices are significantly related to teachers' attitude toward norms of traditional decorum and propriety--the higher the socioeconomic status of the family of origin, the greater the degree of traditionalism. The four categories of the subjective SES index give a greater percentage point difference than the trichotomous Hollingshead score, but the relationship is substantially the same. This finding is in keeping with the oft repeated statements in the literature on social stratification, as well as the poverty/education writings, which indicates that the upper socioeconomic classes are more conscious of propriety and of the need for an orderly, "mannerly" existence. The lower classes are viewed as less concerned with the formal aspects of etiquette and decorum; more open expression is given to feelings and emotions. It is assumed that individuals reared in a family with traditional emphasis on propriety would tend to reflect this early socialization in later life.

It is also seen from Table 2.01 that both SES indices are related significantly to Professional Job Satisfaction. The lower the class of origin, the greater the degree of dissatisfaction with the teaching profession. In light of the frequent discussion[1] of the relatively low esteem with which teaching is viewed by the general population, this appears to be an anomoly. One would expect that those from the upper SES groups would view themselves as downwardly mobile and view the profession with some trepidation, if not hostility. Similarly one would expect the upwardly mobile teachers from working class origins to be more favorably disposed to teaching since it was their route to mobility. It should be noted that the upper two SES groups are not differentiated with respect to job satisfaction; the "variance" is at the lower end of the SES continuum. Thus it might be argued that the teacher of "humble" origins is apt to be intimidated by the teaching situation and tends to dislike the "professionalism" for which there exist no analogues in the childhood experience.

An interesting relationship is noted between the Hollingshead SES index and interpersonal alienation, which is not apparent at all when the subjective SES score is used. Degree of interpersonal alienation varies significantly with the Hollingshead class rank. The lower the SES origins of the teachers, the greater the degree of interpersonal alienation; the difference between the "high" and "low" categories is 14 percentage points. It is possible that the teachers from lower SES categories have difficulty adjusting to the interpersonal world in which they are the "underdogs." They perhaps become defensive, withdrawn, and hostile in their dealings with others. They may view other people as unworthy of trust and upward mobility as earned in a world where competition reigns supreme.

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[1] Cf. The NORC Occupational prestige studies; e.g., Alex Inkeles and Peter H. Rossi, "National Comparisons of Occupational Prestige," American Journal of Sociology, 61 (January, 1956).

Table 2.01 presents the relationships between religion and personal and professional values. Considerations of sample size do not permit the analysis of religious affiliation by means of anything other than a Catholic/Protestant split. The proportion of teachers of Jewish or "other" religious affiliation is too small to permit analysis of this data by tabular analysis. It is also to be regretted that data exist only for affiliation and not for intensity of religious conviction. Since the data are concerned with affiliation, it is possible that "religion" is contaminated with ethnicity, since Catholics represent a wider ethnic base than do Protestants. Similar contamination is possible with respect to SES. Within the limits of the above caveats, however, the following picture is seen to exist.

Religion is strongly related to half the personal and professional value variables. Protestants are more likely than Catholics to be prejudiced (56 vs. 44 per cent). Catholics are more likely than Protestants to be dissatisfied with teaching (38 vs. 28 per cent). Finally, Catholics are more oriented toward success than Protestants (65 vs. 48 per cent). This finding is quite interesting in view of the fact that the success-orientation variable bears close conceptual resemblance to Weber's "Protestant Ethic." There is thus the curious situation in which the Catholics espouse the Protestant ethic to a significantly greater degree than do Protestants.

### B. Current Status Characteristics

Sex of teacher has a pronounced effect upon all the personal and professional values with the exception of attitude toward the school administration. According to Table 2.02, males are more likely than females to be success-oriented (58 vs. 42 per cent), prejudiced (55 vs. 45 per cent), and alienated (60 vs. 48 per cent). Males are less likely to be traditional (35 vs. 54 per cent) and more apt to be dissatisfied with the profession of teaching (34 vs. 26 per cent).

There is much reason to believe that male teachers as a group are quite distinct from female teachers. The pattern of relationships between sex and other demographic characteristics is so prevasive that it is obvious that sex is a potentially important population delimiter insofar as male and female teachers are consistently different. It is not to be argued that biological sex is the important determinant of the observed pattern of differences; rather the concept of "sex role" with the accompanying differences in socialization and socially patterned values and beliefs provides the theoretical framework within which the sex differences are interpreted.

Previous research reviewed in the literature section has considered some of the differences in sex role which are crucial to teachers in the school. Male teachers frequently utilize the teaching experiences as a way-station to entering school administration. The teaching experience is utilized not as a career goal in itself, but rather as a requisite for a later career. To the extent that male teachers are oriented toward administration, rather than the classroom, it may be hypothesized that the anticipatory socialization *vis á vis* the administration will operate to suppress the complete socialization into the current role of classroom teacher.

All differences between male and female teachers need not be traced to the school differences in sex role. The culture of the larger society also intervenes, no doubt.

Semi-professional organizations--nursing, teaching, and social work--have been traditionally staffed primarily by females. Males in these organizations gravitate toward administrative duties. A male teacher may feel he is doing "women's work" and not have the self respect or enthusiasm for his task. Males are in demand in lower class neighborhood schools because of the strong emphasis on discipline which is defined as necessary in these schools. Males, after a brief period of years, may view themselves as a failure in the light of the larger society, if they have not been tapped or educated for an administrative post.

The fact that possession of an advanced degree is unrelated to attitudes is a striking non-finding; one would think that early socialization would be counteracted to some degree by professional training. That no attitudinal differences are related to the presence of an advanced degree implies either that advanced training carries no accompanying attitudinal changes of the type we are presently discussing, or that initial socialization in college is so complete that additional training can accomplish nothing further. Considering the large amount of unexplained variance in the attitudes, the latter supposition is untenable. Thus we seem to be forced to the conclusion that, in our study at least, the lack of differences in measured values according to education level of the teachers implies little attitude change in the educational process.

This finding is perhaps due to the fact that schools of education stress technical proficiency to the exclusion of considerations of basic values. One is particularly hard-pressed to account for the lack of association of professional job satisfaction by level of education attained. Since a teacher with a master's degree is, by definition, more professionally qualified, and committed--at least in time spent in preparation--one would hypothesize that there would be a tendency to be more satisfied with the profession.

Years teaching is not significantly associated with any of the professional or personal values. The pattern of responses by years teaching is quite similar to that of age, which is predictable considering the high ($r = .8$) correlation between age and years teaching experience. Since teachers with a long professional history have devoted more time and effort to teaching activities, one would hypothesize that they would have higher professional satisfaction scores. Perhaps disillusionment and routinization have become established.

Certain curvilinear trends are noticed--with respect to attitude toward the administration, for example,--with teachers with average experience evidencing more dissatisfaction than either more experienced or less experienced teachers. Perhaps the newer teachers have not yet become embittered through intercourse with the school administration. After the novelty of the teacher status has worn off, the new teacher may become more hostile toward the administration. Teachers who remain past the time of disillusionment perhaps tend to be socialized into the system and accept the administration without criticism--perhaps a Bettleheimian "identification with the aggressor" syndrome.

Since religion and socio-economic status of the family of origin were essentially orthogonal in their predictive power at the zero-order level, it is desirable to examine the simultaneous effect of the two upon the personal and professional attitudes. Perhaps greater insight may be gained into the origin of the attitudes by this approach.

## C. Multivariate Effects

Looking first at Table 2.03 we find that the class-related values differ in their association with socio-economic status according to religion of the teacher. It will be remembered that traditionalism was not related to religion, although it did vary with socio-economic status. The table indicates that traditionalism increases with socio-economic status within each of the religious categories. However, the tendency of the Catholics toward more traditional orientation which was insignificant at the zero level accentuates the basic relationship between SES and traditional decorum. The most traditional group thus is the Catholic "high" SES category, (65 per cent traditional) and the least traditional the Protestant "low" SES category, (24 per cent traditional). It should be noted,however, that these low groups are the smallest in size, perhaps reducing confidence in the findings. It could perhaps be argued that during the time the teachers in the study were children, Catholics were likely to be over-represented in the lower socio-economic categories. Thus a wealthy Catholic was somewhat of an anomoly and perhaps "over-compensated" by an over-adherence to the perceived norms of propriety in child-rearing practices.

A curious pattern is noticed when the multivariate relationship between SES, religion, and success-orientation is examined (Table 2.03). Although Catholics were demonstrated to be more success oriented than Protestants at the zero-level, no relationship was noted between SES and success-orientation. The multivariate table suggests a possible explanation for the lack of relationship between SES and the work-success ethic. It is noted that among Protestants, teachers from high SES backgrounds are more likely to espouse the work-success ethic than are teachers from low SES families (47 vs. 24 per cent). The relationship existing among Catholics is just the converse. While for every social class category, Catholics are more success-oriented than Protestants, lower class Catholics are more apt to value success than are their upper class counterparts (70 vs. 59 per cent). These opposing trends by religion account for the lack of relationship between SES and success-orientation at the zero-order. Lower class Protestants may tend to deny their failure--the "sour grapes" mechanism--while upper class Catholics having achieved status, no longer value it so highly. These processes may operate as a means by which respective religious and social class groups deal with status inconsistency.

Table 2.04 presents the multivariate relationship existing between SES, religion, and the "other-oriented" values. It will be noted that although all Catholic groups are less prejudiced than any of the Protestant groups, there is no relationship between SES and prejudice within groups. The original zero-order relationship between SES and prejudice indicates no association; this finding remains unchanged when the effect of religion is examined. The fact that Protestants are more prejudiced than Catholics, however, may provide an indirect explanation for the effect of teacher background characteristics upon poverty group attitude. This interpretation will be amplified in a later chapter.

The relationship existing between SES, religion, and inter-personal alienation is presented in the same table. It should be readily apparent that the relationship is quite complex. Although complete linearity between SES and alienation does not exist in the case of Catholics, it is quite obvious that SES is related to alienation in opposing ways for each of the religious categories. Lower class Protestants and Catholics evidence practically identical percentages of alienation (62 vs. 60 per cent). However, the category with the least alienation is upper class Protestants (45%), while upper class Catholics have the highest percentage of alienated teachers (76%). While it should be noted that the percentages are based upon moderately small sample sizes, all differences are statistically significant.

Table 2.05 presents the relationship between SES and professional values by teacher religion. Examining the relationship between SES and attitude toward the local school administration within each of the religion categories, we note that there is no consistent relationship among Protestants. Among Catholics, however, the higher the SES of the teacher, the less favorable the attitude toward the school administration. Fifty-seven per cent of low SES Catholics are favorable toward the school administration, contrasted with 29 per cent of the high SES Catholics. This difference is statistically significant.

Examining the relationship between SES and professional job satisfaction by religion, a similar but reversed relationship is noted. There is no consistent relationship between SES and job satisfaction for Protestants. However, for Catholic teachers, the higher the SES, the higher the rate of job satisfaction. Forty-three per cent of low SES Catholic teachers express low job satisfaction scores, compared with 25 per cent of the high SES Catholic teachers.

It thus appears that there is no consistent relationship between SES and professional values among Protestants. Among Catholics, however, the following pattern is seen. SES is inversely related to attitude toward the local administration and directly related to professional job satisfaction. High SES Catholics tend to be negative toward the school administration, but favorably inclined toward the teaching profession. An explanation of these findings would rely upon essential differences in the subjective meaning of social class between Protestants and Catholics. It is quite probable that Catholics, perhaps due to considerations of ethnicity, are more aware of the SES structure than are Protestants. Their reference group tends to encompass the lower elements of the SES continuum. High SES Catholics would perhaps tend to be more hostile to the social structure, in general, because of cross-pressures experienced within divergent reference groups.

Having demonstrated that the background and status characteristics of teachers are responsible, in large measure, for the development of personal and professional values, let us examine the relationships existing between these values and the poverty variables.

# V. RELATIONSHIP BETWEEN PERSONAL AND PROFESSIONAL VALUES AND POVERTY ATTITUDES

## A. Zero-Order Relationships

Table 3.01 presents the zero-order relationships existing between the independent variables, personal and professional values, and the dependent variables, attitude toward the poverty group and attitude toward the educational problems of pupils from poverty backgrounds.

The hypothesis relating "middle-class" values and negative attitudes toward the poverty group is given confirmation by the data. Both "success--orientation" and "traditionalism" operate significantly in the predicted direction with respect to attitude toward the poverty group. Fifty-two per cent of teachers who espouse the middle class work-success ethic are antipathetic toward the poverty group, as opposed to 42 per cent of teachers who are rated "low" with respect to success orientation. Similarly, 55 per cent of teachers who were classified as traditional with respect to middle class customs and decorum express hostility toward the poverty group, compared with 42 per cent of the non-traditional teachers.

With respect to these two relationships, it is clear that here exists the direct class of values so often pronounced as gospel in the literature on values of teachers in opposition to the values of the lower class.

People tend to approve others whom they perceive as sharing their own values and to disapprove those whose values are seen as dissimilar. An implied link in this interpretation is that teachers do perceive the lower class as espousing values which are in opposition to the dominant middle-class ones. It was noted earlier that 80 per cent of teachers believed "ambition" to be a characteristic restricted to students from a non-poverty background. Since the poverty group member is viewed as chronically unemployed, irresponsible, "on relief," and in failure terms, those who value success highly perceive the poverty group in a negative manner.

With respect to the relationship between traditionalism and poverty group attitude, an identical interpretation may be offered. It will be remembered from the discussion of teacher stereotyping of children from poverty backgrounds that 44 per cent of the teachers in the present study consider the child from a poverty background to be more impolite than the middle class child, with 48 per cent perceiving no difference. Poverty group children were almost universally seen as less neat and respectful. Adults socialized in a world of gentility or who have experienced the anticipatory socialization associated with aspirations toward the genteel state have little patience with those who brazenly exhibit behavior which is contradictory to the decorous norm and who express themselves in a totally hostile, non-apologetic, defiant manner. Poverty group members are considered "beyond the pale" and are consequently devalued and criticized.

It should be pointed out, however, with respect to both the above relationships, that the percentage differences are not extremely large. That is to say, although the relationships are statistically and substantively significant, they are by no means total. The amount of unexplained variance is quite large.

Table 3.01 also presents the relationships existing between the indices of middle-class values and attitude toward the educational problems of pupils from poverty background. There are no differences between teachers who espouse traditional values of decorum and those who do not with respect to poverty pupil attitudes. While teachers who are rated "high" with respect to success-orientation do exhibit more negative attitudes toward the problems of poverty pupils than teachers who are classified as "low" success-orientation (61 vs. 52 per cent), the difference is not statistically significant.

There are two probable explanations for the lack of predicted association between the middle class value variables and attitude toward the educational problems of poverty youth. It will be remembered that the relationship between attitude toward the poverty group and attitude toward the educational problems of pupils from poverty backgrounds was by no means total, although quite high. People opposed to the poverty group in general may be quite flexible with respect to the specific case. Exceptions may be made to the general rule; this would perhaps be analogous to the oft-heard remark of prejudiced individuals, "Some of my best friends are Negroes." An alternate, but complementary explanation perhaps has its locus in the values of the teaching profession. Teachers tend to be committed to the goal of universal mass education. Even those who are hostile to the poverty group may value this goal and consequently believe that children from poverty backgrounds should be given all possible educational opportunities. Since education in our society is the primary route to upward mobility, even teachers unsympathetic to the poverty group may believe in the efficacy of special solutions to the problems of children from low income families with respect to their educational attainment.

The class of values called "Other-oriented" were predicted to relate to teachers' poverty attitudes. These relationships are presented in Table 3.01. We shall first examine the nature of the association between the other-oriented values and attitude toward the poverty group.

Looking first at the relationship between racial/ ethnic prejudice and poverty group attitudes, we find the hypothesis vindicated. Teachers who are racially and ethnically prejudiced tend to have negative attitudes toward the poverty group. The bivariate frequency table indicates that 63 per cent of prejudiced teachers are negative toward the poverty group, as opposed to 30 per cent of non-prejudiced teachers. In terms of statistical significance, this relationship is the strongest single one existing between independent and dependent variables.

There are several interpretations of this relationship. One might possibly argue that since Negroes and other minority groups are over-represented among the poverty group, prejudiced teachers tend to disapprove the poverty group which they equate with the minority groups. While 29 per cent of the teachers did agree with the statement "Most of the people in the poverty group are Negro," this item was not significantly related to either prejudice or poverty group attitude scores. Thus this interpretation of the relationship between poverty group attitudes and prejudice is rendered less tenable.

An accepted finding from the literature on racial and ethnic prejudice is of probable relevance in interpreting the relationship between prejudice and poverty group attitudes. People who are prejudiced against one ethnic group tend to be prejudiced against others; in other words, prejudice tends to be generalized. To the extent that antipathy toward the poverty group is a specific form of a generalized underlying "prejudice response set," much of the other accepted findings related to prejudice can possibly be brought to bear in the analysis of poverty group attitudes. Potentially, then, this finding is one of the more important ones of the present study.

Inter-personal alienation as one of the "other-oriented" values was also predicted to be related to negative attitude toward the poverty group. The hypothesis is given support by the data. Teachers who are interpersonally alienated tend to be more negative toward the poverty group than are non-alienated teachers (53 vs. 40 per cent).

While there is no single clear-cut explanation of this relationship, it is suggested that teachers who are alienated or highly distrustful in their inter-personal relationships would perhaps fail to approve any category of persons. Since alienated teachers tend to be prejudiced, disapproving of the school administration, and dissatisfied with the profession of teaching, it is quite possible that teachers who are inter-personally alienated are so because of an underlying discontent which leads to blanket disapproval of others.

Alienated teachers may be threatened more by the poverty group than by any other minority group. It is this group which may represent all which they dislike in themselves--a lack of ability to be "master of one's fate" be it social or political. On the other hand, the alienated teacher may tend to be more favorable toward equal status peers--those who do not invoke invidious comparisons in either direction.

The other-oriented values of teachers were also predicted to relate to attitude toward the educational problems of low income pupils. These relationships are also presented in Table 3.01.

Looking first at the relationship between racial/ethnic prejudice and poverty pupil attitude, it is noted that differences are in the predicted direction. Fifty-five per cent of prejudiced teachers are negative toward the problems of poverty pupils, as contrasted to 49 per cent of unprejudiced teachers. Statistical significance is not attained, however. It will be noted that a certain anomaly exists with respect to prejudice and poverty attitudes. Prejudice is a good predictor of attitude toward the poverty group; however, its predictive utility is much less with respect to attitude toward poverty pupils. It appears that again we have a situation in which there is differentiation between the general case, poverty group, and the specific, poverty pupil. Exceptions are made to the general rule.

Examining the relationship between inter-personal alienation of teachers and attitude toward the educational problems of low income youth, we note that differences are statistically significant and in the predicted direction. Sixty-three per cent of alienated teachers express lack of sympathy with the poverty pupils, as opposed to 50 per cent of the non-alienated teachers.

Alienated individuals are often characterized as perceiving others as "being out for themselves." If this be the case, then alienated teachers may tend to be of the opinion that students of low income backgrounds should be able to do as well as anyone else. The responsibility rests upon the individual and "rightly so." The individual should rely only upon himself. By the same token, the alienated teacher may not be willing to "go out of his way" to help such students. If the teacher does the job for which he has been trained, that effort is sufficient if the student really wishes to learn.

The final set of relationships presented in Table 3.01 concerns professional values and poverty attitudes. It will be noted that professional values are not significantly related to either attitude toward the poverty group or attitude toward the educational problems of poverty youth. While there is no theoretical reason why attitude toward the poverty group should be affected by either of the measured professional values, it is somewhat surprising that neither of the professional values are related to evaluation of the educational problems of poverty youth.

One would think, for example, that those teachers who are most satisfied with the teaching profession would be most responsive to the problems faced by poverty pupils in the schools. It will be demonstrated in a later section, that knowledge of teachers' professional values, in conjunction with other variables, does yield predictive information about receptivity to an in-service training program designed to familiarize teachers with the problems of poverty youth and with tactics for dealing with these problems.

One potential link between the professional values and poverty attitudes is provided by the variable, poverty information. It will be recalled that level of information was poorly predicted by any of the demographic variables, in contrast to poverty exposure which was explained by several background characteristics. Poverty information is significantly associated with only one independent variable in the study, professional job satisfaction. Teachers who are highly satisfied with the teaching profession tend to have higher levels of poverty information than do teachers with low satisfaction; 57 per cent of teachers with high job satisfaction are classified as having a high level of poverty information, contrasted with 42 per cent of teachers with low satisfaction.

A probably interpretation of this relationship lies in the concept of professionalism. Since teaching may be considered a semi-professional occupation, there are considerable differences among teachers with respect to their concern with problems common to the profession. The current professional teaching literature is replete with references to the educational problems of children from poverty groups, the "culture of poverty," etc. However, this and other literature is likely to be read more by teachers who are satisfied with the profession, than by those for whom teaching is simply a job which they may not value particularly highly.

Another indirect relationship between professional values and poverty attitudes is perhaps mediated through the variable, interpersonal alienation. Both professional job satisfaction and attitude toward the school administration are related to alienation. Sixty-nine per cent of teachers with low job satisfaction are interpersonally alienated, compared with 49 and 48 per cent of teachers with moderate and high degrees of job satisfaction. Fifty-seven per cent of teachers who oppose the school administration are characterized by alienation, as compared with 43 per cent of pro-administration teachers. Marxian explanations may be used to explain the link between professional values and inter-personal alienation. People who are dissatisfied with their work roles tend to become alienated.

Not liking teaching may be symptomatic of not liking one's current state of affairs. A teacher may feel inadequate in the classroom or may not be receiving the rewards which were responsible for the initial entry into the "profession." Since one's work tends to be fundamental to one's identity in our society, dissatisfaction with one's work would tend to have ramifications in one's inter-personal relations. Perhaps it is only when one feels fulfilled in his work that one can procede to relate meaningfully with others and derive reward from interpersonal contacts. Of course, there exists the probability of reciprocal causality between job satisfaction and alienation. It might be argued that it is only when one is satisfied in the inter-personal situation that he is able to derive maximum reward from work.

A similar line of argument may be used to explain the relation between administration attitudes and interpersonal alienation. It is perhaps the case that negative experiences with the school administration lead to distrust and hostility toward others. Again, the causal relation may be reciprocal. However, the point to be made is that the existence of significant relationships between the professional values and alienation suggests a route whereby professional values might have some impact upon poverty attitudes.

## B. Conjoint Effect of Independent Variables

Although the zero-order analysis of relationships existing between personal values and attitudes toward the poverty group and toward the educational situation of poverty pupils revealed interesting results in the predicted directions, the percentage difference figures were not extremely high in most instances. It is highly desirable to examine some of the higher order relationships to gain insight into the more complex nature of the relationships among independent and dependent variables.

An examination of the simultaneous effect of two independent variables upon the dependent variables will permit analysis of the relative contribution of each of the two independent variables. It will be possible to assess the extent to which the two are independent and/or cumulative in their effects upon the dependent variable.

An inherent limitation of the static time sample survey lies in the difficulty of assessing time-ordering of variables--especially attitudinal ones. This limitation does not hold in the case of demographic or contextual variables used as "control" variables; variables such as sex or geographic region may be used as "filter" variables for various categories of which a basic bivariate relationship may be examined. In later sections variables will be used for multivariate analysis which are viewed as "intervening" between x and y in the traditional use; however, the variables to be so employed may be temporally ordered with more confidence than those under consideration at the present time.

In the multivariate tabular analysis which follows, temporal ordering of the two independent variables is considered unimportant theoretically as well as mechanically. The two independent variables are considered to operate simultaneously--in Rosenberg's terms "conjointly."

Table 3.02 presents the joint effect of prejudice and traditionalism on teachers' attitudes toward the poverty group. In the zero-order analysis both of these variables were significantly related to poverty group attitude. We now note that, regardless of degree of traditionalism, teachers who are prejudiced are much more negative toward the poverty group than are unprejudiced teachers. For traditional teachers the percentage difference in negative poverty group attitude between prejudiced and unprejudiced teachers is 31; for non-traditional teachers the difference is 34 percentage points. It is also apparent that the relationship between traditionalism and poverty group attitude holds regardless of prejudice. Traditional teachers are more negative toward the poverty group than non-traditional teachers--a 12 percentage point difference for prejudice teachers and 15 points for non-prejudiced teachers. The percentage difference figures indicate that while the effect of prejudice is much greater than that of traditionalism, the two variables do operate independently. It will also be noted that the effects of the two variables is cumulative; the explanatory power of the two variables operating simultaneously is much greater than either operating separately.

The literature concerned with teacher discrimination against lower class students stresses difference in values or class of origin as the important determinants of teacher antipathy toward the poverty students. A potentially important finding is that the effect of prejudice (an "other-oriented" value) is much greater than that of traditionalism ("a class-related" value) in predicting teacher attitude toward the poverty group.

The relation between these same joint predictors and attitude toward the educational problems of poverty pupils is presented in Table 3.03. Again we note the independent and cumulative effects of the two variables. It will be remembered that the zero relationships between traditionalism or prejudice and attitude toward poverty pupils were not statistically significant. Their joint effect on the dependent variable is significant--substantively as well as statistically. Although inspection of the percentage differences indicates that prejudice is a slightly better predictor than traditionalism in the multivariate table, the predictive advantage of prejudice is much less than in the case of attitude toward the poverty group.

Before attempting to evaluate the theoretical importance of the relative contribution of "class-based" and "other-oriented" values, it is desirable to examine other combinations of these two classes of variables with respect to both dependent variables.

Table 3.04 presents the interactive effect of teacher prejudice and success-orientation on attitude toward the poverty group. Both these independent variables were related to poverty group attitudes at the zero level. The joint analysis reveals cumulative contributions of each of the two variable to prediction of poverty group attitude. The percentage difference figures indicate, however, that prejudice is by far the more important of the two. In addition, knowledge of success-orientation adds little information with respect to non-prejudiced teachers (4 percentage points). Finer discrimination is added in the case of prejudiced individuals (11 points).

Comparing the conjoint relationship with the zero order relationship between prejudice and poverty group attitude, it is noted that the added discrimination obtained by also considering success-orientation is slight. Sixty-three per cent of prejudiced teachers are antipathetic to the poverty group, compared with 30 per cent of the non-prejudiced teachers; this yields a discrimination range of 33 percentage points. Examination of the polar cells of the multivariate table indicates the range has been increased to 40 percentage points(68 per cent negative for the "yes-yes" cell compared with 28 per cent negative for the "no-no" cell)--a net gain in predictive power of 7 points.

We may conclude that teachers who are both success-oriented and prejudiced are more likely to be unsympathetic to the situation of the poverty group. Perhaps it is these teachers who are most highly socialized in the ways of the larger society and thus tend to exclude across the board those they perceive as not "fitting in."

The conjoint effect of prejudice and success-orientation upon teachers' attitude toward the educational problems of students from poverty backgrounds is presented in Table 3.05. Although neither prejudice nor success-orientation were statistically significant in their relationships with the dependent variable, the joint effect of the two on poverty pupil attitude is significant.

Independent and cumulative effects are also noted. Prejudice is more important than success-orientation, although the difference is not as dramatic as in the case of attitude toward the poverty group; success-orientation manifests its greatest effect among prejudiced teachers. Since "success" by definition is a middle class phenomenon with characteristic attendant values, it is perhaps to be expected that the teachers who are prejudiced as well as success-oriented would be the more unresponsive toward the plight of the poverty student. Being intolerant toward racial and ethnic minorities plus having definite success strivings appear to work hand-in-hand to mutually reinforce a negative outlook regarding poverty pupils. Seventy-two per cent of this group is negative in outlook as opposed to 46 per cent among teachers who are neither prejudiced nor success-oriented.

The conjoint effects of traditionalism and alienation on teachers' attitudes toward the poverty group are presented in Table 3.06. Each of these independent variables was significantly related to poverty group attitudes in the zero-order table. The joint effect enhances discriminatory power since they operate independently and cumulatively upon the dependent variable. Examination of the percentage differences reveals that the two have approximately equal predictive importance; this is confirmed by a comparison of the off-diagonal cells: 46 per cent of the traditional, non-alienated teachers disapprove the poverty group as compared with 48 per cent of non-traditional alienated teachers.

Thus if one is both traditional in outlook and also alienated, negative poverty group attitudes tend to prevail (62%); if one is neither alienated nor traditional, negative assessment of the poverty group is lessened (35%). Perhaps those in the latter cell when described in positive terms are teachers who are both "well-adjusted" and "flexible" in orientation. They may tend not to be threatened nor offended by the poverty group. On the contrary, they may tend to be generously disposed toward them and sincerely interested in "helping" in their educational careers. Once a teacher is able to "accept" himself and feel "attuned" to modern society, he may be able to accept poverty students and be aware of their adverse conditions.

Teacher traditionalism and inter-personal alienation are jointly related to attitude toward the educational deprivation of poverty pupils in Table 3.07. This relationship is more complex than others previously discussed in this chapter. It should be remembered that alienation was related to poverty pupil attitudes at the zero-order, while traditionalism was unrelated. The relationship between alienation and poverty pupil attitude holds, regardless of traditionalism. Although the most negative category among teachers is the "traditional, alienated" group, the converse is not true. Contrary to expectation, the least negative group is the "non-alienated, traditional" category (46%). The group one would expect to be the least negative is composed of teachers who are neither alienated nor traditional. In this group, 53% are negatively disposed toward poverty pupils. Since it may be argued that 53% is not significantly greater than 46%, no explanation will be offered to explain why these percentages are empirically transposed with respect to the "expected" location.

The important finding is that alienated teachers, regardless of their score with respect to traditional values, will tend to express negative attitudes toward poverty pupils. Alienated teachers may be victim of an interpersonal communication breakdown. Such a breakdown may be behind the initial alienation experienced by the teacher and be, in part, responsible for its continuance in the present.

Teaching may be thought of in a large measure as interpersonal communication. Perhaps alienated teachers are "poor teachers" in general. That is to say, an alienated teacher may not make any more effort nor be more interested in communicating with or teaching the middle class child than he is the lower class one. Unfortunately, our data does not allow assessments to be made with respect to the teaching effectives of alienated and non-alienated teachers vis a vis middle and lower class pupils. However, the excellence of an interpersonally alienated teacher is questioned, regardless of student social class.

Table 3.8 presents the simultaneous, equally-weighted effect of the success-orientation, traditionalism, prejudice, and alienation upon the poverty attitudes. Examining first the relationship between the four independent variables and poverty group attitudes, the prediction range is 53 percentage points--a considerable improvement over the zero-and first-order tables. It is apparent from the table that the four independent variables operate in a cumulative, and more or less independent manner to influence poverty group attitudes. We could describe the teacher most hostile to the poverty group as one who was traditional, success-oriented, prejudiced, and inter-personally alienated. The most favorable teacher is one who is the converse on all four dimensions.

Interestingly enough, however, the four independent variables taken together with respect to attitude toward the poverty pupils provide a prediction range of only 20 percentage points--a small absolute increase over the initial 13 provided by alienation alone. It may be concluded from this that alienation is the single most important variable with respect to poverty pupil attitudes and that it is more highly weighted than the other three variables.

In spite of the vast and impressive body of literature stressing the supreme importance of teacher socio-economic origins and consequent middle class values leading to poverty group prejudice, data presented in this chapter indicate that teacher values which are not class-related are of greater importance. For example, in each case when the effects of prejudice and class-based values were assessed with respect to attitude toward the poverty group, prejudice was demonstrated to make the greater predictive contribution. Thus it may be of value to conceptualize the prejudiced individual as being prejudiced against social class minorities as well as ethnic and racial ones. In addition to a dislike of the poverty group, the prejudiced respondent may also oppose the "lazy rich"--another social class minority.

With respect to attitude toward the educational deprivation of poverty youth, the "other-oriented" values, especially inter-personal alienation, were demonstrated to be more important than the class-related values.

Inter-personal alienation was interpreted to possibly mean a breakdown in teacher-pupil communication which may tend to hinder the teaching efforts of the highly alienated. It may be characteristic of the alienated group to be unable to establish rapport with other social groups, particularly those perceived as being dissimilar from themselves; the poverty pupil group would fall in this latter category.

It is not in the scope of this chapter to draw final conclusions with respect to the illustrative roles which such personal characteristics as prejudice and alienation play in determining attitudes toward the poverty group in general, and poverty pupils, in particular. However, it should be stressed that personal value orientations--success orientation, traditionalism, alienation, and prejudice--are firmly related to poverty group attitudes. In fact the relationship of these personal variables is stronger than the relationship of SES variables with respect to both poverty group and poverty pupil. Thus at this point it may be advantageous to examine in depth the relation of teacher personal values to poverty attitudes when demographic categories are statistically controlled.

## C. The Effect of "Controls"

Before accepting completely the findings offered in the previous section linking class-related and other-oriented values to poverty attitudes, it is necessary to determine how well the basic relationships hold for various sub-populations. It does not appear necessary to examine all possible independent/dependent relations, controlling on all demographic categories. Rather each of the three classes of variables will be restricted.

Traditionalism will be used as the sole indicator of class-based values. Prejudice will be the index of other-oriented values. Attitude toward the poverty group has been selected as the representative dependent variable, since both traditionalism and prejudice were strongly related to it on the zero-order level. The most potentially important demographic categories, on the basis of previous analysis, appear to be SES of origin, age, and sex.

Table 3.9 presents the relationships between traditionalism and teacher attitude toward the poverty group, controlling on the selected demographic characteristics. Looking first at the basic relationship controlling on SES, it is apparent that the more traditional teachers are more negative toward the poverty group in all SES categories. In terms of statistical significance, however, the relationship is not significant for the low SES group, while it is highly significant for the high SES category. An additional interesting finding is noted. There is no relationship between SES and attitude toward the poverty group for non-traditional teachers. For traditional teachers, however, there is a linear relationship between SES and poverty group attitudes with a 13 point percentage spread. This would indicate that traditionalism provides a conditional link between SES and poverty group attitudes; SES determines poverty attitudes, _if_ the teacher is oriented toward traditional decorous norms.

Examining the same relationship for various age categories, significant differences are noted only for teachers under age 25. It should be pointed out that all differences remain in the predicted direction, with traditional teachers being more negative toward the poverty group than are non-traditional teachers.

When sex is introduced as a control variable, the relationship is statistically significant for females only. The differences remain in the predicted direction. It is interesting to note that traditional males and traditional females have equivalent degrees of poverty group hostility. Non-traditional females are much less hostile to the poverty group than are non-traditional males (38 vs. 45 per cent).

Summarizing the effect of demographic or population control variables upon the basic relationship between traditionalism and poverty group attitudes, it may be said that the basic character of the relationship remains unchanged. However, due to the fact that the relationship is not extremely large, statistical significance cannot be maintained in all subpopulations. This is not to deny the validity of the finding, but rather to point out an essential weakness due to the relatively low strength of the initial relationship.

Table 3.10 presents the relationship between prejudice and teacher attitude toward the poverty group, controlling on SES, age, and sex. It is readily apparent that the basic relationship retains its initially strong character, regardless of population sub-breaks. Only once in the entire table does the percentage difference in poverty group hostility between prejudiced and unprejudiced teachers fall below 30 points; in the case of teachers over 39, the percentage difference is reduced to 21 points--still quite strong.

Because the relationship between prejudice and poverty group attitude retains its essential character in all cases, it is not necessary to discuss the tables further. It should be apparent that the prejudice/poverty group attitude connection is not a fluke, but rather a consistently strong association.

Although the relationship between traditionalism and poverty group attitude is considerably weaker than that between prejudice and poverty group attitude, the directions of both relationships stand the control category test quite well. It is now quite desirable to determine the effect of poverty experiences which function as intervening variables in the basic relationship between independent and dependent variables. The next chapter deals with such intervening variable analysis.

# VI. THE EFFECTS OF EXPOSURE

It will be remembered from Chapter IV that exposure to poverty was strongly related to certain background characteristics of teachers. The higher the socio-economic status of the teacher's family of origin, the higher the exposure. Males were more likely to have higher exposure than females. The older the teacher, the higher the exposure. Poverty exposure, thus, offers a possible additional link between background factors and poverty attitudes. Although poverty information was not related to teacher background characteristics, it was related to the professional attitudes of teachers. Thus information level potentially provides a link between professional attitudes and poverty attitudes.

In order for the poverty experience variables to serve as links in the causal chain, it must first be ascertained to what degree they are related to the poverty variables. The effects of poverty experience and exposure upon attitudes toward the poverty group and the poverty pupils are interesting in their own right. Does exposure to poverty increase the probability that a teacher will become more favorable toward the poverty group? What is the effect of information? These questions have theoretical, as well as practical, significance. The vast body of literature from attitude and opinion research accords an ambiguous status to the role of variables analogous to information and exposure. There appear to be two opposing possible effects. On the one hand, information and exposure to novel situations may bring about attitude change--the propaganda analog. On the other, the effect of additional information may be one of opinion crystallization and intensification. Before proceding further with speculative analysis, it is necessary to examine the zero-order relationships existing between the poverty experience variables and the poverty attitudes.

Table 4.01 reveals that poverty information level is related significantly to attitude toward the poverty group. Teachers with a high level of poverty information are more favorable toward the poverty group than teachers with low levels of information. Fifty-eight per cent of the teachers with a high level of information regarding poverty tend to be favorable toward the poverty group as opposed to 48 per cent of those teachers with a low degree of information.

It is interesting that a relationship between information and poverty attitudes exists, while there is no relationship between actual exposure and poverty attitudes. Two _caveats_ should be noted regarding the relationship between information level and poverty group attitudes. First, the measure of information level is subjective, with the teacher herself ranking her level of knowledge on specific items. It is possible that teachers who are favorable in attitude toward the poverty group tend to assign a higher subjective level of information to themselves. Second, it is possible that a selective information seeking function exists. Teachers who are sympathetic to the poverty group may tend to secure more information about the problem than teachers who are not sympathetic.

The relationship between poverty information level and attitude toward the educational problems of pupils from poverty backgrounds is not statistically significant. As has been repeatedly demonstrated in attitude and opinion research, the simple increase of information _vis á vis_ a particular opinion area does not necessarily lead to attitude change. Also to the extent that change does occur, it is not necessarily complete with respect to the total content area, but may be quite restricted. Such differential impact upon different segments of the content area would perhaps offer an explanation for information being related to poverty group attitudes, but not to attitude toward the poverty pupils. A possibly important action implication of this negative finding is that simply providing information to teachers about poverty will not necessarily lead to attitude change _vis á vis_ the educational problems of pupils from poverty backgrounds.

Table 4.01 also presents the association between poverty exposure and the poverty attitudes. It is interesting to note that exposure gives a different picture than did poverty information. Exposure is not significantly related to attitude toward the poverty group, while it is significantly associated with attitude toward poverty pupils--the converse of the pattern seen with respect to poverty information.

Not only is the form of the impact which exposure has different from poverty information, the content is also quite the opposite. The higher the degree of exposure to poverty, the more negative the teacher toward the educational problems of pupils from poverty backgrounds. Sixty-three per cent of teachers with low exposure to poverty are non-sympathetically inclined toward the educational problems of students from poverty backgrounds, as opposed to 52 per cent of the teachers with high exposure scores.

It might be argued that personal exposure to poverty gives the teacher some empirical "input" about the educational problems associated with being a child from the poverty background. In other words, the primary function of exposure is held to be one of identification which then affects attitude.

The effect of exposure and information appears to be primarily one of intensification and polarization of existing attitudes rather than a change function. To the extent that this interpretation is correct, the poverty experience variables should cause intensification of relationships between basic values such as prejudice or traditionalism and the poverty attitudes. Examination of this attitude congruity or intensification function may be examined by treating exposure as a representative intervening variable in tabular analysis.

Table 4.02 presents the relationships existing between the class-related values and poverty attitudes with poverty exposure functioning as an "intervening" variable. It will be remembered that both traditionalism and success-orientation were related to attitude toward the poverty group at the bivariate level; they were both unrelated to attitude toward the educational problems of poverty students. Examining these relationships in the light of exposure to poverty provides some interesting findings.

The relationship between success-orientation and poverty group attitudes maintains the direction of the zero-order relationship regardless of degree of exposure; teachers who are highly success-oriented are more negative toward the poverty group than teachers who are not success-oriented. In the high exposure group, the difference between success-oriented and non-success-oriented teachers with respect to negative attitude toward the poverty group is 8 percentage points; for the low exposure group, the percentage difference is increased to 11. It is evident from the table, however, that the percentage differences are statistically significant only for the low exposure group. Since, to a considerable degree, the loss of significance can be explained by the simple reduction in sample size imposed by the exposure breakdown, a hasty conclusion based simply upon significance level is unjustified.

It is interesting to note, however, that the relationship between traditionalism and poverty group attitudes displays the same pattern when poverty exposure is introduced. Although traditional teachers are more negative toward the poverty group regardless of exposure, the percentage difference is a statistically insignificant 4 points for the high exposure group, compared with 10 points for the low exposure category.

The tendency for teachers with "middle class" values to be more antipathetic toward poverty in conditions of low poverty exposure is also noted with respect to the relationship between success-orientation and attitude toward poverty pupils. Although there was no relation between success-orientation and attitude toward the educational problems of poverty pupils at the zero-level, in conditions of low exposure success-oriented teachers are significantly more negative than non-success-oriented teachers (59 vs. 47 per cent).

The traditionalism measure, on the other hand, remains unrelated to attitude toward poverty pupils in both the highly exposed and the unexposed groups. Of the four relationships between the class-related values and poverty attitudes, however, this is the only one which does not display the pattern of significant differences only for teachers with low exposure. The tendency for middle-class values to be useful predictors of poverty attitudes only in conditions of low exposure warrants additional attention. It is first necessary, however, to examine the relationships between "other-oriented" values and the poverty attitudes within the two exposure conditions to determine the stability of the basic relationships.

Table 4.03 presents these relationships by exposure to poverty. Looking first at the relationship between prejudice and attitude toward the poverty group within each of the poverty exposure categories, it is immediately noted that the strength of the original relationship is essentially unchanged. Teachers with high exposure scores are slightly more negative toward the poverty group than are their low exposure counterparts. However, within each exposure category prejudiced teachers are much more prone to poverty group hostility than are non-prejudiced teachers. In the high exposure group the percentage difference is 34 points, essentially the same as in the low exposure group (33 points difference).

It may thus be concluded that the basic relationship between prejudice and poverty group attitudes operates independently of exposure. It might be argued that the exposure situations are selectively interpreted to coincide with existing opinion states; such selective perception is known to operate with respect to general and specific racial/ethnic prejudice, whereby contacts with minority group members may have little or no effect on prejudice.

Turning to the relationship between inter-personal alienation and poverty group attitudes by poverty exposure, it is noted that the relationship between the two variables remains significantly in the predicted direction regardless of exposure. However, the relationship is intensified in the high exposure group and somewhat diminished in the low exposure situation. In the high exposure category 57 per cent of alienated teachers are negative toward the poverty group, compared with 27 per cent of the non-alienated teachers--a difference of 30 percentage points. Comparable percentages in the low exposure situation are 50 and 40--10 points difference.

It does appear, then, that the high exposure situation operates to intensify the relationship between the two variables. It might be argued that exposure operates to "personify" the poverty group; in other words, the inter-personally alienated individual becomes more hostile to the group perceived in negative terms initially. A more important effect, however, seems to be reduction in poverty group hostility for the non-alienated individual in the high exposure situation. When exposed to poverty, the non-alienated teacher seems able to relate to, or identify with, the poverty group. Not blocked by a hostile response set, the non-alienated person is able to respond to the poverty group in a non-stereotyped fashion.

Table 4.03 also presents the relationship between the other-oriented variables and attitude toward the educational problems of low income pupils by exposure. The zero-order relationship between prejudice and poverty pupil attitudes was not significantly different from chance expectancy. It is evident, however, that exposure operates to "conditionally explain" the relationship between the two variables. In the low exposure category, there is no difference in poverty pupil attitude according to degree of teacher prejudice. In the high exposure group, however, the relationship between the two variables is quite strong. Seventy-one per cent of prejudiced teachers are non-sympathetic to the educational plight of poverty pupils, compared with 52 per cent of non-prejudiced teachers. The effect seems to be centered in the intensification of negative attitudes on the part of prejudiced teachers under high exposure conditions. Thus, prejudice leads to lack of sympathy with poverty pupils if and only if poverty exposure is high.

Alienation was significantly related to poverty pupil attitude at the zero-order. When the initial relationship is examined by exposure condition, it is found that differences remain in the predicted direction. However, statistical significance exists only in the low exposure situation. In the high exposure situation, the percentage difference in negative attitude between alienated and non-alienated teachers is 8, compared with 15 points in the low exposure situation. The situation here is the reverse of that when prejudice and poverty pupil attitude was examined by exposure. The relationship between prejudice and poverty pupil attitude is intensified by exposure, while that of alienation and poverty pupil attitude is diminished in the high exposure context. The situation here is also different from the trivariate alienation, exposure, poverty group relation where the strongest relationship existed in the high exposure condition.

Apparently high exposure operates to diminish the strength of the association between alienation and poverty group attitude by personalization of the poverty group student; he is no longer an anonymous "other" but has concrete existence and is perceived in specific, rather than categorical, terms. It should be noted again, however, that teachers are more negative to the educational problems of low income children under conditions of high exposure than they are in the low exposure situation; this is true regardless of alienation.

The effects of poverty exposure upon the basic independent/dependent relationships may be briefly summarized. The class-related values, success-orientation and traditional propriety, are consistently related to poverty attitudes only in conditions of low exposure. Exposure apparently operates to produce less value-based stereotyping of both the poverty group and poverty students. It would thus appear that exposure to various poverty situations might have some efficacy as a technique in reducing the association between the midle-class values of teachers and negative poverty attitudes.

The relationship between prejudice and poverty group attitude remains essentially unchanged by poverty exposure. This would tend to reinforce the notion that poverty group hostility is a generalizable form of a prejudice response set, since racial and ethnic prejudice are not usually reduced by simple contact with the minority group in question. An emergent relationship between prejudice and poverty pupil attitudes is seen in conditions of high exposure, in contrast to the case of the class-based values which held only in the low exposure situation.

Alienated teachers are more negative toward the poverty group, regardless of exposure; however, non-alienated teachers tend to become significantly less hostile in conditions of high exposure than they were in the low exposure situation. The relationship between alienation and poverty pupil attitudes is found to be statistically significant only in the low exposure situation, thus resembling the class-based values in this respect.

# VII. TEACHER RECEPTIVITY TO AN IN-SERVICE TRAINING PROGRAM

The statement of the problem guiding the present research referred to several different links between children's socio-economic position and their educational horizons. The previous chapters have analyzed some aspects of one such link--namely, the nature and determinants of teachers' attitudes toward the poverty group and toward the educational problems of children from low income backgrounds.

The action-oriented literature is replete with suggestions and projects designed to mollify the relationship between SES and educational deprivation. To a large degree the types of suggested action programs parallel the theoretical linkages previously discussed. Thus some programs are oriented toward countering the effects of cultural deprivation and inadequate early socialization by providing diverse physical and cultural stimuli at the pre-school and elementary level.[1] Other programs focus upon improvement of educational values and self-concepts of socially deprived youth.[2] Some recent programs have been developed to provide specialized information and guidance programs to provide motivation not inculcated in the lower class home situation.[3]

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[1] This is the primary rationale for the Federally sponsored Head Start Program as well as for many similar programs.

[2] The Higher Horizons Program, while multi-faceted, aims extensively at improving the self-concepts and motivation level of socially and culturally deprived youth.

Concern with teacher discrimination as a link between SES and educational horizons has given rise to action-programs designed to reduce teacher bias. Although various programs have taken different approaches, all have been characterized by attempts to change teachers' attitudes toward the poverty group in general and poverty students in particular. The programs have varied considerably. Some programs have aimed at the cognitive aspects of the problem; others at the affective domain. All have been concerned with producing conative change in the behavioral patterns associated with the discriminatory attitudes.[4]

From the social action point of view, teachers' response to training programs designed to change their attitudes and behaviors toward socio-economically disadvantaged children is quite important. Retraining of teachers is much more pragmatically sensible than personnel replacement. There have been few studies which have indicated any significant degree of attitude change brought about by in-service type training programs, however. One possible explanation for the lack of impact of the training programs lies in the fact that teachers who are initially negative toward poverty individuals may be highly antipathetic toward the program. The situation may exist in which those least in need of the information and attitude change which are the goals of the program would be most responsive to the program and vice versa. The question may be thus posed: "To what extent is teacher receptivity to a program designed to provide information about the relationship between poverty and educational disadvantage a simple function of existing attitudes toward poverty?"

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[3] The Coordinated Information and Guidance Program currently in progress at the Learning Research and Development Center of the University of Pittsburgh is characterized by this focus.

[4] A fairly comprehensive discussion of the teacher-related aspects of the Detroit Great Cities School Improvement Project is presented by C. A. Marburger in "Considerations for Educational Planning," in A. H. Passow (ed.) Education in Depressed Areas (New York: Teachers College, 1963), 303-321.

Table 5.01 presents the zero-order relationships between selected variables and teachers' receptivity to the in-service training program. The relationships tend to be in the predicted direction, although statistical significance is not universally obtained.

We shall examine first the relationship of poverty attitudes and training receptivity. Attitude toward the poverty group is related to receptivity to a special training program for teachers designed to provide information about the educational needs and problems of poverty group students. We find that 63 per cent of the teachers with negative attitudes toward the poverty group are hostile to the special training program, while only 46 per cent of the teachers with negative attitudes toward the poverty group are characterized by negative attitude to the action program. While it is obvious that attitude toward the training program is not a simple function of poverty attitudes or attitudes toward the educational problems of lower class students, it should be noted that there is a statistically significant training approval difference of 17 percentage points among teachers depending upon poverty group attitudes.

Teachers who are hostile toward the poverty group do not desire to participate in and deny the probability of success of an action program designed to train them to cope with the educational problems of socio-economically disadvantaged students. To a limited extent, at least, it appears that this finding reflects the fact that attitudes carry their own "built-in" resistence to change. Teachers do not wish to encounter new information which may contradict their existing attitudes and perhaps cause "dissonance" or other attitudinal imbalance; new information may be avoided by avoiding the training program.

The relationship between attitudes toward pupils from poverty backgrounds and attitudes toward special training is much higher than any other zero-order relationship discussed in this chapter. We find that only 40 per cent of teachers who are sympathetic toward the educational problems of children from poverty backgrounds express antipathy toward the training program, compared to 64 per cent of teachers who are unsympathetic to the educational plight of the low income child. The percentage difference of 24 points indicates that attitude toward educational deprivation of low income children strongly predetermines a teacher's response to a program designed to acquaint her with the strategies of dealing with the problems of the low income pupil.

Here again, it is perhaps the case that teachers strive to retain cognitive clarity and reduce potential sources of dissonance. The training program has a negative valence for those teachers who hold attitudes denying the educational disadvantage of poverty students; similarly the training program is approved by teachers whose existing attitudes will not be threatened by the program.

Thus it is somewhat disquieting. Teachers who are hostile toward the educational plight of the poverty pupil are not readily amenable to an action program designed to change their attitudes toward the pupil.

Looking next at the professional values, we note that 59 per cent of those who are opposed to the local school administration are hostile toward the proposed training program, as compared with 50 per cent of pro-administration teachers. There is, perhaps, a tendency for teachers to identify in-service training activities within the school with the school administration. Training programs are viewed as instigated or supported by the administration. Teachers who are favorably inclined toward the administration "back" the administration's activities, while teachers negative toward the administration express hostility toward the program and doubt toward the program's success chances.

Job-satisfaction as a predictor of attitude toward training evidences very small percentage differences. Teachers who are low in job satisfaction are very slightly more negative toward the training program than teachers with high job satisfaction (54 vs. 51 per cent). It was hypothesized that the impact of professional job satisfaction upon training attitudes would be much greater with those teachers who were highly satisfied with the profession of teaching. These teachers would be more approving of the training program than dissatisfied teachers, due to a higher degree of professional commitment. Since, however, attitude toward the school administration is more strongly related to training attitudes than job satisfaction, the job satisfaction variable will not be considered further in this chapter.

Table 5.01 also indicates the effect of poverty exposure and information upon attitude toward the proposed training program. Teachers who have been highly exposed to poverty tend to be favorable toward the training program; while 58 per cent of teachers with low poverty exposure are negative toward the training program, only 49 per cent of the high exposure teachers are negative. The most obvious explanation of the relationship is that exposure to poverty leads to awareness of additional training necessary to cope with the attendant educational problems. The nature of this relationship will be investigated in greater detail in a later section, through the use of higher order tables.

"What can be done about it?" is often the layman's response to social problems once having been emotionally touched. A teacher once aware of poverty, is more likely to be favorably disposed to "action" programs than those who have not been exposed or had the problem brought to their attention. Poverty (concern with) is now fashionable in intellectual circles. However, it was only recently that the active self conscious liberal became aware of the extent of poverty. It is not surprising that teachers are not familiar with poverty until "exposed," and then more willing to take action.

Poverty information is not significantly associated with attitude toward the special training program, although the percentage figures tend to indicate that low level of information is associated with rejection of the training program. It is apparent, however, that factors other than previous knowledge _per se_ enter into attitude toward training. One could, however, hypothesize two opposing relationships between information and training attitudes which could account for the low association between the two. Highly motivated teachers with low information levels could approve the training program in the desire to learn more; similarly teachers with already high information levels might approve the training program simply on the basis of previous knowledge of its probable effect. Since, however, exposure was seen to be more strongly related to training attitude, the information variable will be dropped from future consideration.

Since the strongest relationships found at the zero-order level were those between the poverty attitudes and training, it appears necessary to examine the effect of both poverty attitudes upon training receptivity. Table 5.02 presents the simultaneous effect of poverty group attitudes and attitude toward the educational problems of low-income youth upon training receptivity. It will be remembered that each of these variables was quite strongly related to attitude toward training at the zero-level, although poverty pupil attitudes produced the stronger relationship. The superior predictive ability of attitude toward the educational problems of poverty youth, however, is demonstrated by comparison of the percentage difference figures in the higher order table. It seems quite reasonable that attitude toward the educational problems of poverty youth would be more strongly related to training receptivity than attitude toward the poverty group. The training program is specifically aimed at the educational problems of the poverty pupils, rather than the totality of all problems encountered by the poverty group.

Comparing the cells on the major diagonal in table 5.02, it is noted that a 35 percentage point difference exists. This is an 11 point increase in predictive power over the strongest zero-order relationship noted in table 5.01 between training and attitude toward the educational problems of poverty youth. It may thus be concluded that although poverty pupil attitude is the more influential of the two, they are independent and cumulative in effect.

Examination of the bivariate and multivariate tables involving the poverty variables and attitude toward training indicates that training receptivity is, in large measure, influenced by attitudes toward the poverty group and the perception of the problems faced in schools by low income youth. This is to be expected since to a certain degree attitude toward the training program is an index of the conative dimension of poverty attitude. That is, a favorable attitude toward the training program reflects belief in the severity of the problem of educational deprivation of low income youth, belief in the remedial nature of the problem, and also personal willingness to be subjected to a program aimed at information and attitude change.

In spite of the fact that training is in part an index of poverty attitude, there remains the fact that teachers who favor the program, and presumably respond to it, are those who are least in need of change from the action frame of reference. Before concluding this discussion, however, it is desirable to examine how the effects of poverty attitude compare with attitude toward the administration--a professional value--in the determination of attitude toward training, since training is a professional activity.

Table 5.03 presents the joint effect of attitude toward the administration and teachers' attitude toward the poverty group upon receptivity toward the training program. It should be noted that the two variables operate independently and cumulatively to influence receptivity toward the program. Although additional refinement is provided by considering the two independent variables jointly, attitude toward the poverty group accounts for more difference in training attitude than does attitude toward the administration. Among teachers negative toward the poverty group, those who oppose the administration are more negative toward the training program than pro-administration teachers (69 vs. 57 per cent, a 12 percentage point difference). The same differentiation by administration attitude is noted among teachers who are positive toward the poverty group, although the percentage difference is reduced to 5 points; the comparable percentages are 48 and 43 per cent negative respectively.

Table 5.04 presents substantially the same relationship, although in this case, it is attitude toward the educational problems of poverty pupils which is interacting with administration attitude to determine training receptivity. The pattern is so identical, that no discussion of the actual figures seems warranted. It is quite evident that attitude toward the school administration does exert some influence upon teacher receptivity; it is equally evident, however, that the influence is considerable less than that wielded by the poverty attitudes.

Since the effect of attitude toward the administration on teacher receptivity toward the action training program is significantly less than that of other variables under consideration, no further attention will be paid to it. It should be remembered, however, that a definite, albeit weak, relationship does exist and it is of potential importance, theoretically as well as programatically. Attitude toward the administration, a local situation-bound professional value, does operate to produce differential relationships between poverty attitudes and the training variable. To a limited extent at least, this may be interpreted as a "social conditioner" of purely personal attitudes. From the action frame of reference, it would appear that if teachers are hostile toward the local school administration, then it would be desirable to divorce action programs of this type from the administration insofar as possible.

The relationship between poverty attitudes and receptivity toward the training program may be influenced to some degree by the extent to which the teacher has been exposed to poverty. It has been demonstrated earlier that exposure to poverty modifies the relationship between class-based and other-oriented values and poverty attitudes. It is thus desirable to examine the relationship between the poverty attitudes and training attitudes to determine by degree of exposure whether similar polarization and opinion crystallization occur.

Table 5.05 presents the relationship between poverty group attitude and teacher receptivity toward the training program by poverty exposure. It is immediately apparent that the strongest relationship between poverty group attitude and training attitude occurs in the high exposure condition. Sixty-one per cent of teachers who are hostile toward the poverty group oppose the training program, compared with only 36 per cent of teachers who are favorable toward the poverty group. The relationship is in the same direction for these teachers with low exposure to poverty, but the comparable percentages are 64 and 52. It appears from the table that for teachers who are negative toward the poverty group, poverty exposure makes no significant difference in terms of training attitude, however, teachers favorable toward the poverty group tend to be less negative toward training under conditions of high poverty exposure than if exposure is low (36 vs. 52 per cent negative).

We thus have a situation in which teachers with positive attitudes toward the poverty group are much less negative toward the training program than teachers who are antipathetic toward the poverty group. While exposure to poverty makes little difference for teachers negative toward the poverty group (61 vs. 64 per cent negative toward training for high and low exposure conditions respectively), exposure makes a great difference for teachers with favorable attitudes toward the poverty group. Teachers favorable toward the poverty group tend to be less negative toward training under conditions of high poverty exposure than if exposure is low (36 vs. 53 per cent).

Teachers sympathetic toward the poverty group express less hostility to the training program because they are less threatened by the subject matter. However, when under conditions of high exposure they also become aware of substantial educational problems faced by people from poverty backgrounds, they become even more favorable toward the training program as a source of information and problem solutions. Teachers who are negatively inclined toward the poverty group, however, disapprove the training program regardless of exposure. Their minds seem "closed"; they are opposed to the poverty group and they are opposed to training. Before drawing final conclusions on these relationships, however, it is desirable to examine the relationship between poverty pupil attitudes, exposure, and training receptivity.

Table 5.06 presents this relationship. The table bears a resemblance to the previous one with one major exception. For both "negative" and "positive" teachers with respect to attitude toward the educational problems of low income pupils, exposure reduces hostility toward the training program. We note that, among teachers with non-sympathetic attitudes toward the educational problems of poverty youth, 58 per cent of those with high poverty exposure favor the training program, compared with 68 per cent of those with low exposure. This finding perhaps reflects the fact that high exposure exerts direct pressure upon the teacher to favor training as a means of coping with the problems of pragmatic classroom education of poverty pupils, regardless of whether the teacher is actually in sympathy with the educational problems of the child.

Looking at teachers who are sympathetic with the educational problems of the low-income child, it is noted that those with high exposure are less hostile toward training than those with low exposure (32 vs. 45 per cent). It is apparent that exposure exercises a push toward training--necessitated by first-hand experience with the situation--independent of poverty attitude. However, it is evident from the two tables just discussed that the effect of poverty attitudes is greater than that of exposure per se.

Table 5.07 presents the multivariate relationship between attitude toward the poverty group, attitude toward poverty pupils, poverty exposure, and training receptivity. It is evident from the table that each group of teachers characterized by their attitudinal position vis à vis the poverty group and the poverty pupils is less negative toward the training program in the high exposure condition than in the low exposure one.

The group least negative toward training is characterized by high poverty exposure, favorable attitude toward the poverty group, and sympathy toward the educational problems of poverty pupils. The most negative category is the converse in all respects. The percentage difference between these two categories is 48 points.

Summarizing the results of this chapter, it can be said that the strongest predictor of training, singly and in combination, is attitude toward the educational problems of pupils from poverty backgrounds. The second most important explanatory variable is attitude toward the poverty group in general. Attitude toward the school administration was also found to partially determine the teacher's stance with respect to training. Poverty exposure was found to be an important determinant, both in its own right and when taken in combination with the poverty attitudes.

These findings, as well as others in the study, will be further summarized and discussed in the next chapter and their implications will be examined from both sociological and policy frames of reference.

# VIII. SUMMARY AND CONCLUSIONS

## A. The Research Problem

The general context of the present research was the determination of causes of educational deprivation of low income children. More specifically, the research focused upon the teacher as a potential link in the poverty/educational disadvantage chain. Inadequacies in the existing body of theoretical and empirical literature related to the hypothesis of "middle class bias" of teachers provided the present study with its *raison d'être*.

Previous research had failed to account for differences among teachers with respect to poverty-related attitudes. In addition, the nature of these poverty-related attitudes had been neither precisely delineated nor measured.

Rejecting the simplistic theory of teacher middle class origins directly determining negative attitude toward low income pupils, the search for determinants of poverty attitudes focused upon three major types of values held by teachers. The first set was those hypothesized to be *class related*, since primary emphasis was upon the values of success and propriety--two fundamental items in the middle class value constellation. The second value type was related to teachers' ascriptive evaluations of others, namely prejudice and inter-personal alienation. The final set of values considered was related to the area of professional evaluations by teachers. In addition, direct experience with poverty was hypothesized to mediate all relationships. A conceptual causal model relating these factors to poverty attitudes was developed.

## B. Procedures

The study was based upon analysis of data collected from 400 junior and senior high school teachers in the four county metropolitan Pittsburgh area. Data were collected by means of anonymous, pre-tested, pre-coded questionnaires.

Primary techniques of determining dimensionality and weights of indices were factor and scale analysis. Supplementary techniques included Likert and Hollingshead score procedures. In addition, some variables were represented by single questionnaire items.

The analysis of relationships between the variables in the study was carried out through use of multivariate and tabular techniques. Relationships were analyzed in accord with a predetermined hypothetical causal model.

Major background or preconditional variables included objective and subjective socio-economic status, religion, sex, age, teaching experience, income, and education level. Eight independent variables were considered: work-success ethic, traditional decorum, prejudice, inter-personal alienation, professional job satisfaction, and attitude toward the school administration. Poverty exposure was identified as a variable intervening between independent and dependent variables. Two dependent variables were identified: attitude toward the poverty group and attitude toward the educational deprivation of low income pupils. Finally, receptivity to an action program designed to ameliorate the educational problems of poverty youth was considered as a consequent variable.

## C. Summary of Major Findings

### 1. Teacher Background and Status Characteristics and Poverty Experience and Attitudes

a. Socio-economic status is not directly related to either attitude toward the poverty group or toward the educational problems of poverty students.

b. Hollingshead SES is inversely related to exposure; the higher the class origin of the teacher, the lower the degree of exposure.

c. Protestant teachers tend to be more negative toward the poverty group than Catholics. The relationship is in the same direction with respect to poverty pupils, but is not significant.

d. Three relationships exist between teachers' current personal and professional status characteristics and poverty variables: (1) the higher the teacher's income, the higher the exposure to poverty; (2) teachers between the ages of 25 and 39 tend to have the highest information level with respect to the poverty issue, (3) exposure to poverty increases with age and teaching experience.

e. Although the basic relationship between SES and poverty group attitude is minimal, the differences are significant for females. Hostility toward the poverty group increases as females move up the SES continuum.

f. With respect to sex, SES and attitude toward poverty pupils is related only for males. The higher the SES origin, the more negative their orientation to the plight of poverty pupils.

g. For teachers over 39 years of age, the higher the SES of origin, the more negative the attitude toward the poverty group.

2. Teacher Background and Status Characteristics and Personal and Professional Values

   a. For two SES indices, the higher the socio-economic status of the family of origin, the greater the degree of traditionalism reported in the teacher sample.

   b. The lower the class of origin, the greater the degree of dissatisfaction with the teaching profession.

   c. The lower the Hollingshead score of the teachers, the greater the degree of interpersonal alienation.

   d. The following findings pertain to religion: (1) Protestants are more likely than Catholics to be prejudiced; (2) Catholics are more likely to be dissatisfied with teaching; (3) Catholics are more oriented toward success than Protestants.

   e. With respect to sex, males are more likely to be success-oriented, prejudiced, and alienated, and less likely to be traditional. Females tend to be more satisfied with teaching than their male colleagues.

   f. Possession of an advanced academic degree is not related to any of the variables under consideration.

g. Teachers with the average amount of time spent in the system tend to be more hostile to the administration than either more or less experienced teachers.

h. Traditionalism increases with socio-economic status for both Catholic and Protestant teachers.

i. Among Protestants, teachers from high SES backgrounds are more likely to espouse the work success ethic while lower class Catholic teachers are more apt to value **success** than higher status Catholics.

j. Prejudice does not vary within social class groups; Protestants tend to be more prejudiced than Catholics regardless of SES.

k. With respect to alienation, upper class Protestants report the least alienation (45%) as opposed to upper class Catholics with the highest percentage of alienated teachers (76%). Low status teachers from both religious groups, however, approximate the same degree of moderate alienation (62% and 60%, Protestants and Catholics, respectively).

l. Among Catholics, the higher the SES of the teacher, the less favorable the attitude toward the school administration. Conversely, the higher SES Catholic also tends to report high job satisfaction. The relationship among Protestants are not as consistent.

3. Personal and Professional Values and Poverty Attitudes
    a. Teachers strongly identifying with such middle class values as traditionalism and success orientation tend to be negative in their approach to the poverty group. The relationship is not significant, however, with respect to poverty pupil attitudes.
    b. Teachers who are racially and ethnically prejudiced tend to be negatively disposed toward the poverty group. Similar negative orientation characterizes teachers with high interpersonal alienation. The relationship between prejudice and attitudes toward pupils from poverty backgrounds is not significant. Hostility toward poverty pupils is predicted by high inter-personal alienation.
    c. Teachers with strong job satisfaction, tend to have high levels of poverty information. These same teachers also report low interpersonal alienation.
    d. Teachers who are prejudiced toward the poverty group are prejudiced regardless of the degree of traditionalism they may espouse. On the

other hand, traditional teachers are more negative regardless of prejudice; i.e., traditionalism and prejudice operate independently in determining attitude toward the poverty group. The same mechanisms appear to be operating also with respect to attitudes toward poverty pupils.

e. When prejudice and success-orientation are examined with respect to their predictive powers, prejudice is seen to be the stronger variable in determining attitude toward the poverty group. Teachers who are both success-oriented and prejudiced are the more likely to be unsympathetic to the poverty group. The effect is the same with respect to poverty pupil attitudes, but less dramatic.

f. Traditionalism and inter-personal alienation tend to have equal predictive power with respect to poverty group attitudes. If one is traditional and alienated, negative attitudes tend to be reported. On the other hand, alienated teachers tend to be negative toward the poverty group, regardless of traditionalism.

g. The teacher profile of one most hostile to the poverty group would tend to read as follows: traditional, success-oriented, prejudiced and inter-personally alienated.

h. Alienation is the single most important variable with respect to predicting poverty pupil attitudes and should be weighted more heavily than a teacher's traditionalism, success-orientation or prejudice.

i. Although the relationship between traditionalism (an index of class-based values) and poverty group attitude is weaker than prejudice and poverty group attitude, both relationships stand the control category test when social class, age, and sex are introduced.

4. The Effect of Poverty Exposure

   a. Teachers with a high level of information are more favorable to the poverty group than are less informed teachers. Information level, however, does not relate significantly to poverty pupil attitude.

   b. Exposure to poverty is the converse of the pattern seen with respect to level of information. The higher the exposure, the more negative the teacher's attitude toward the plight of poverty pupils. No significant pattern emerges with respect to the poverty group.

c. Teachers with strong success orientation and high traditionalism tend to be negative toward the poverty group, regardless of the extent of their exposure to poverty. The relationship is significant only with respect to the success variable.

d. With respect to poverty pupils, teachers with low exposure and high success-orientation tend to be more negative than teachers with low success-orientation. Traditionalism remains unrelated to poverty pupil attitude both under conditions of high and low exposure.

e. Middle class values tend to be useful as predictors of poverty attitudes only under conditions of low exposure.

f. Under varying conditions of exposure, prejudiced teachers are more prone to be unsympathetic to the poverty group than non-prejudiced teachers; i.e., the relationship between prejudice and poverty group attitude operates independent of exposure.

g. The relationship between inter-personal alienation and poverty group attitude remains in the negative direction regardless of the extent of exposure to poverty. The relationship is somewhat intensified in the high exposure group and diminished in the low.

h. Prejudice leads to a lack of sympathy with the educational situation of poverty pupils if and only if teacher exposure to poverty is high. In the low exposure category, there is no difference in poverty pupil attitude according to the degree of prejudice.

i. Alienated teachers are more negative toward the poverty group, regardless of exposure; however, non-alienated teachers tend to become significantly less hostile in conditions of high rather than low exposure. The relationship with respect to poverty pupils is significant statistically only in the low exposure situation.

5. Determinants of Training Receptivity

   a. The more favorable the attitude toward the poverty group or educational problems of poverty pupils, the more likely are teachers to be receptive toward an in-service training program.

   b. Professional values-attitude to the school administration and job satisfaction--are not strongly related to in-service training receptivity.

   c. Level of information concerning poverty is not significantly associated with training receptivity; exposure, however, is more strongly related.

d. Attitude to poverty pupils is a stronger predictor of training receptivity than poverty group attitude.

e. Attitude toward the poverty group is a stronger predictor of training receptivity than attitude toward the school administration, although those negatively disposed toward the administration tend to look unfavorably upon in-service training.

f. Teachers favorable toward the poverty group tend to be less negative toward training under conditions of high exposure than low; if the _teacher is negative_, however, _exposure_ is _irrelevant_.

g. Regardless of teacher attitude toward poverty pupils, exposure to poverty results in an increased willingness to engage in in-service training.

h. The effect of poverty attitudes is greater in its determination of training orientation than is exposure to poverty considered alone.

i. The group of teachers most highly in favor of training are characterized by high poverty exposure, a favorable attitude toward the poverty class and a large measure of sympathy toward the educational situation confronting poverty pupils.

## D. Conclusions

We see the significance of these findings in terms of contributions to the research challenges offered by Gross,[1] Charters,[2] and Corwin,[3]: What is the nature of teachers' poverty attitudes? To what extent is attitude toward pupils from lower-class families a function of the middle class origins and/or middle class values of the teachers? Second, what alternative modes of explanation may be offered to account for the disadvantaged situation of the poverty child in the classroom? While the present study cannot be considered definitive, partial answers to the questions are provided by the present research.

The present study has presented evidence for the existence of patterned discriminatory poverty attitudes on the part of teachers. It was also determined that poverty attitude was not a single unidimensional phenomenon; rather, several sub-dimensions exist which must be treated as if orthogonal. It is important to point out also that a large degree of diversity among teachers existed with respect to all sub-dimensions of poverty attitudes. Thus it became central to the present research to search for determinants of variation among teachers with respect to the various sub-dimensions of poverty attitude under consideration.

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[1] Gross, op. cit., p. 148.

[2] Charters, op. cit., p. 739.

[3] Corwin, op. cit., p. 179.

It was determined from the present study that although a majority of teachers in our sample were objectively and subjectively of middle class origin, no simple relationship existed between socio-economic origins and poverty attitudes. We thus challenge the universal applicability of the middle class origins thesis of teacher antipathy *vis à vis* the lower class pupil propounded by Warner and associates[4] or Davis,[5] for example.

There are two qualifications which should be offered prior to rejection of the thesis entirely, however. First, it is altogether possible that the social ranking mechanisms in a small community would be more dependent upon social origin of the teacher. The small size of the community might permit more direct knowledge of the backgrounds of the students. To the extent that mobility is reduced, as in the static stratification system, the social origin of the teacher might relate more strongly to attitude toward the lower class student.

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[4] Warner, Havighurst, and Loeb, *idem*.

[5] Davis, *op. cit.*, p. 89.

A second type of qualification should be offered based upon analysis of population subgroups in the present study. It will be remembered that the relationship between socio-economic origins and poverty attitudes, particularly attitude toward the poverty group, was significant for certain demographic categories of the population. Sex and age were important conditional modifiers in this respect. Thus we cannot destroy the argument that social origins determines poverty attitude; we can, however, question its importance as a universal explanation of the educational disadvantage of poverty youth.

A somewhat more sophisticated hypothetical model of causes of teacher discrimination against poverty students focuses upon the role of middle class values, rather than middle class origins per se. The work of Boocock,[6] Rich,[7] or Gordon[8] is representative of this approach. The teacher is seen to personify the middle class values of the school and discriminate against the lower class child for departures from these values. Becker's[9] study of Chicago teachers has provided a major source of data for this thesis.

We have been able to demonstrate that background characteristics of the teacher are highly influential in the development of "middle class" as well as other values. It is evident from the present study, however, that teachers are far from homogeneous with respect to value orientations.

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[6] Boocock, op. cit., p. 35.

[7] Rich, op. cit., pp. 355-357.

[8] Gordon, op. cit., p. 42.

[9] Becker, op. cit., 1952a, p. 473; Becker, 1952b, pp. 463-465.

Support was given for the hypothesis that espousal of middle class values was associated with discriminatory attitudes toward the poverty group and poverty pupils by the present study. Teachers who supported middle class values tended to be negative in orientation toward those from poverty backgrounds. It was thus concluded that variation in social class values represented an improvement over variation in social class origin with respect to prediction of discriminatory poverty attitudes.

However, the fact that the relationship between middle class values and poverty attitudes were not stable for many demographic subgroups of the population imposed some qualification of the thesis. Perhaps more important, these relationships did not hold under conditions of high exposure to poverty; it appeared from analysis of our data that exposure operated to reduce poverty hostility based upon perceived value discrepancies. Thus, while we acknowledge that differences in middle class value espousal among teachers did give rise to differences in evaluation of those from poverty backgrounds, we must question the primacy of these value differences as major causes of discrimination against pupils from poverty backgrounds.

Following the lead of Charters, a search for alternative modes of explanation of teacher variation in poverty attitude was undertaken. The first approach involved investigation of the role of professional values suggested by the work of Anderson,[10] Geer,[11] and Rettig and Pasmanick.[12] Contrary to expectations, however, there were no consistent relationships involving professional values and poverty attitudes. Attitudes toward the school administration were found to bear some relationship to acceptance of a poverty-oriented, in-service training program, however.

For our population it appeared that any potential effects of professional statuses and values were outweighed by other considerations. Perhaps differences among teachers in definition of teaching as a professional activity was responsible for the lack of relationship found between these professional variables and poverty attitudes.

By far the strongest associations between predictor and poverty variables observed in the study were those involving the "other-oriented" values. Those who tended to use ascriptive, evaluative, and pejorative response modes in structuring their personal and/or group relations were those with greatest hostility toward people from poverty backgrounds. Not only were these the strongest relationships observed, they were also the most stable when demographic control factors, such as socio-economic origins, age, or sex, were introduced.

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[10] Anderson, op. cit., p. 696.

[11] Geer, op. cit., pp. 31-35.

[12] Rettig and Pasamanick, op. cit., p. 115.

The relationships between the "other-oriented" values and poverty attitudes in general held regardless of exposure to poverty. These latter findings give additional support to the thesis that generalized perceptions of others are more important in determining reaction to poverty pupils than are perceived value differences.

The finding that "other-oriented" values or response sets were powerful and stable predictive factors of poverty attitudes is in keeping with the analyses of ascriptive thought processes investigated by such researchers as Adorno _et al_.,[13] and Rokeach.[14] Although the data provided by the present study did not admit analysis of such underlying personality characteristics as authoritarianism or dogmatism, the relationships between the "other-oriented" values and poverty attitudes might well have been due to such common causes.

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[13] Adorno _et. al_., _idem_.

[14] Rokeach, _idem_.

We would suggest on the basis of the present research that heterogeneity characterizes the processes by which different teachers evaluate and rank students. This appears to be definitely true with respect to ranking children from poverty backgrounds. Some teachers appear to rank with respect to "middle class values"; this may not be dissonant, however, with respect to the institutionalized dominant value themes of a universalistic/achievement-oriented society.

Other teachers appear to rank poverty children on the basis of strictly ascriptive processes. While we may of course find that self-fulfilling prophesy mechanisms operate to validate the teacher's assessments, it would appear that the introduction of nonrational, ascriptive evaluation within the context of a rational bureaucracy would hamper the assortative/placement function of the educational establishment.

The extent to which ranking is dominated by class-related value differences or by generalized ascriptive tendencies will perhaps be dependent upon situational or contextual factors. Our research has suggested, for example, that teacher antipathy toward the lower class student in the slum school would be determined primarily by differences in ascriptive tendencies; in the suburban school, where exposure to poverty is lower, such antipathy would tend to occur more as a function of perceived value differences.

We are not able to offer final conclusions with respect to all aspects of our research problem. We do believe, however, that we have demonstrated the importance of variables not previously considered in research on teachers and lower class students. In addition, we have called into question the universal relevance of much accepted earlier work.

## E. Policy Implications

The following attempt to suggest policy implications of the present study is rooted in certain value positions. First poverty based social inequality is "bad" and constitutes a major social problem. Second, these inequities should be ameliorated. Third, social change can best be accomplished on a "piecemeal" basis.[15] Fourth, there is no necessary conflict between a scientific discipline of sociology and social action based upon such a science.

The relevance of educational inequality to the whole problem of poverty has been considered in previous sections of this paper. A "piecemeal" attack upon poverty, then, should give much consideration to the schools.

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[15] Sharing Popper's objection to the phrase "social engineering," and believing in the pragmatic superiority of change on a rationally limited scale, I have adopted his vocabulary. See, Karl R. Popper, The Poverty Of Historicism (New York: Harper and Row, 1960), Section II.

Since the population of the present study was teachers, we shall concern ourselves with the potential applications of the present study for the staffing of schools to permit minimum bias against the lower class child. With consideration of the possible limitations of findings based upon a single sampling in time and space, these implications should be viewed cautiously. In the absence of other empirical data, however, they might serve as the basis for "teacher tinkering"--to modify Popper's phrase.

Discussing teachers for disadvantaged children, Goldberg defined a major problem as identification of the teacher who is

> . . . successful with culturally disadvantaged pupils--successful because the pupils achieve better than similar pupils in other teachers' classes and have more accepting attitudes toward school, toward the teacher and toward learning.[16]

We believe we have made some slight progress in that direction.

Our data are based upon questionnaire responses, rather than classroom observation. We have, however, identified certain key variables associated with poverty attitudes. It is acknowledged that the correlation between our verbal measures of teachers' response to poverty and the classroom behavior will not be perfect; we do, however, except that a large correlation would exist.[17]

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[16] Miriam Goldberg, "Teachers for Disadvantaged Children" in Kerber and Bommarito, op. cit., p. 231.

Given the fact that a minority of teachers are currently defined as "ideal" with respect to poverty attitudes (and presumably behavior), the question next becomes: What strategies of attitude change might be most effective in producing "good" teachers?

It is probable that the role of the local school administration should be considered carefully with respect to the program. There is some indication from our study that teachers who are hostile toward the administration tend to express hostility toward a program identified with the administration. This possibly reflects a "credibility gap" in the local administrator-teacher relationship.[18]

In 1965 a report[19] was issued describing many existing programs and projects dealing with the disadvantaged in the schools. Although many of these programs involved in-service training, there was little evidence of significant attitude change on the parts of participating teachers,

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[17] Cf. The relationship between racial prejudice and discrimination, in Allport, op. cit.

[18] Cf. The work of C. I. Hovland and W. Weiss, "The Influence of Source Credibility on Communication Effectiveness," Public Opinion Quarterly, 15 (1951), 635-650.

[19] American Association of School Administrators and Research Division, School Programs for the Disadvantaged, Circular No. 1 (Washington, D.C.: National Education Association, 1965).

This general negative finding is in keeping with the findings in the present study. It appears that those teachers who are most "in need of" training are the least likely to respond favorably to it. This type of relationship has been repeatedly reported in the attitude change literature.[20]

Given that this situation exists, two possible strategies are seen with respect to training of teachers who are already favorable in orientation toward the impoverished. These teachers may be dropped from further training considerations since they have already accepted the basic attitudes and knowledge to be inculcated; alternatively, these teachers might be provided much additional training in hope of making them even more effective in dealing with pupils from poverty backgrounds. In view of the probable lack of effect of the training on those who are initially hostile, it would appear that the latter course offers the most promise.

Another possible strategy concerns the observed impact of poverty exposure in the educational context upon teacher response to the training program. It was observed that exposure increased the probability of receptivity to the program, even though exposure created initial hostility toward the poverty group. Thus, it might be advisable to artificially induce a high level of exposure on the part of the group to be trained--possibly through field trips to slum schools, etc.

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[20] _Cf._ H. H. Hyman and P. B. Sheatsley, "Some Reasons Why Information Campaigns Fail, _Public Opinion Quarterly_, 11 (1950), 412-423.

Given the potential problems associated with effective use of the training program and given the lack of relationship observed between advanced educational training and poverty attitudes, it would appear that meaningful change can best be brought about by alteration of recruitment policies to secure the services of the least biased/ascriptive teachers.

Viewing the teacher-student relationship in terms of the practitioner-client model, it is possible that these implications are capable of further generalization. These findings might be applicable to a broader spectrum of professionals and sub-professionals who are frequently in interaction with disadvantaged clients. We are referring primarily to nurses, social workers, and other "helping" practitioners.

## F. Suggestions for Further Research

The present study has offered some explanation of the role of teacher characteristics in determining attitudes toward the poverty group and toward the educational problems of children from poverty backgrounds. We cannot regard the present study as definitive; there are too many additional factors which need consideration. Drawing upon both the strengths and weaknesses of the present effort, the following suggestions for additional research are offered.

Of prime consideration is the determination of the empirical relationship between teachers' poverty attitudes and classroom behavior toward the poverty group. To the extent that the correlation approaches unity, the same explanatory variables may have utility for both attitude and overt behavior. It is to be expected that the relationship between attitude and behavior will be substantial, although far from perfect. It will, in all probability, be necessary to add additional explanatory factors to the model as developed.

A second desirable extension of the present research might be determination of the extent to which observed relationships would hold within different parameters of population and social context. Would the observed pattern of relationships hold in the urban ghetto or the rural South, for example. Under consideration here would also be determination of empirical similarity between teachers and other practitioners who have clients from the poverty group.

Given the non-panel nature of the present study, temporal change in independent or dependent variables or in the nature of the relationships existing between independent and dependent could not be ascertained. To some extent this difficulty was overcome through use of intervening variable analysis; this is not a substitute for determination of actual "panel turnover," however. It is important that the stability of all observed variables and relationships be determined.

This is particularly true when considering applied implications of the present work. Additional information about the nature of observed relationships over time would provide a much stronger base for policy.

The dramatic impact of the exposure variable, in particular, demands temporal analysis. In our static study we have indicated its potential importance in predicting both poverty attitudes and in conditioning relationships between other variables and poverty attitudes. However, analysis based upon retrospective assessment of exposure may lead to bias; the tendency toward selective rewriting of one's personal history on the basis of one's present status is well known.[21]

Relationships observed might have been interpreted in the light of any of a variety of cognitive consistency models.[22] This mode of explanation was not used, since it is primarily explanation for attitude change, not relationships between static attitudes. We might posit, however, a "strain toward consistency" under conditions of high salience of the attitude or relationship in question. Such interpretation is of higher probable validity, however, when measures exist in two or more points in time.

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[21] See the discussion of "Excursus: Alternation and Biography" in Peter Berger, Invitation to Sociology (Garden City, New York: Anchor Books, 1963), pp. 25-53.

Similarly, the stability of relationships might be examined under conditions of reference group cross pressures.[23] To achieve this end, sampling would have to occur both over time and according to population parameters which would provide varied, socially controlled frames of reference.

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[22] The literature on both the consistency models and attitude change in general is ably summarized in Arthur R. Cohen, _Attitude Change and Social Influence_ (New York: Basic Books, 1964).

[23] _Idem_; see also Elihu Katz and Paul Lazarsfeld, _Personal Influence_ (Glencoe: Free Press, 1955).

# APPENDIX A

# SINGLE ITEM MARGINALS

## I. Background Characteristic

| | Percent |
|---|---|
| How far did your father go in school? | |
| 1. Some grade school | 20% |
| 2. Finished grade school | 22 |
| 3. Some high school | 16 |
| 4. Finished high school | 17 |
| 5. Some college | 12 |
| 6. Finished college | 6 |
| 7. More than college | 7 |
| Which of the following comes closest to describing the work of your father? | |
| 1. Farm owner and/or manager | 6 |
| 2. Farm worker | 0 |
| 3. Workman or laborer | 19 |
| 4. Private household worker | 0 |
| 5. Service worker | 3 |
| 6. Semi-skilled worker | 12 |
| 7. Skilled worker or foreman | 21 |
| 8. Clerical worker | 6 |
| 9. Salesman | 3 |
| 10. Manager or executive | 8 |
| 11. Proprietor or owner | 12 |
| 12. Professional | 10 |
| Which of the following best describes your family's financial condition while you were growing up? | |
| 1. Barely able to make a living | 2 |
| 2. Had the necessities | 28 |
| 3. Fairly comfortable | 42 |
| 4. Very comfortable | 25 |
| 5. Well-to-do | 2 |
| 6. Wealthy | 0 |
| Which social group would you say your father belonged to while you were growing up? | |
| 1. Upper class | 0 |
| 2. Upper middle class | 17 |
| 3. Middle class | 50 |
| 4. Lower middle class | 16 |
| 5. Working class | 16 |
| 6. Lower class | 1 |

| | Percent |
|---|---|
| What is your religious preference? | |
| 1. Protestant | 54% |
| 2. Catholic | 32 |
| 3. Jewish | 0 |
| 4. Other | 2 |
| 5. None | 1 |
| 6. I prefer not to answer | 11 |
| Where were you born? | |
| 1. Local Penna. | 73 |
| 2. Non-local Penna. | 17 |
| 3. U.S., other states | 9 |
| 4. Foreign born | 1 |
| Which of the following bests describes the community you grew up in? | |
| 1. Large city | 8 |
| 2. Medium city | 5 |
| 3. Small city or town, non-suburb | 34 |
| 4. Small city or town, suburb | 30 |
| 5. Farm or village | 23 |

## II. Current Status

| | |
|---|---|
| Sex | |
| 1. Male | 59 |
| 2. Female | 41 |
| Age | |
| 1. 20-24 | 29 |
| 2. 25-29 | 20 |
| 3. 30-34 | 12 |
| 4. 35-39 | 9 |
| 5. 40-44 | 8 |
| 6. 45-49 | 7 |
| 7. 50-54 | 7 |
| 8. 55-50 | 7 |
| 9. 60+ | 4 |
| Marital Status | |
| 1. Single | 36 |
| 2. Married | 61 |
| 3. Divorced | 1 |
| 4. Separated | 0 |
| 5. Widowed | 2 |

| Number of children | Percent |
|---|---|
| 0 | 27% |
| 1 | 19 |
| 2 | 28 |
| 3 | 17 |
| 4 | 6 |
| 5 | 2 |
| 6 | 1 |
| 7 | 1 |

## III. Teaching Characteristics

| How many years have you been teaching? | |
|---|---|
| 1. 0-2 | 28 |
| 2. 3-5 | 20 |
| 3. 6-8 | 12 |
| 4. 9-11 | 9 |
| 5. 12-14 | 6 |
| 6. 15-17 | 6 |
| 7. 18-20 | 4 |
| 8. 21-23 | 3 |
| 9. 24+ | 13 |

| How many years have you been teaching in your present school? | |
|---|---|
| 1. 0-2 | 38 |
| 2. 3-5 | 22 |
| 3. 6-8 | 11 |
| 4. 9-11 | 7 |
| 5. 12-14 | 6 |
| 6. 15-17 | 3 |
| 7. 18-20 | 3 |
| 8. 21-23 | 2 |
| 9. 24+ | 8 |

| What (major) subject do you teach? | |
|---|---|
| 1. Science, math | 23 |
| 2. Social studies | 14 |
| 3. Humanities | 31 |
| 4. Business, shop, home ec., vocational subjects | 16 |
| 5. Phys. ed-health | 7 |
| 6. Other | 9 |

| What is the highest college degree you hold? | |
|---|---|
| 1. B.A. | 73 |
| 2. M.A., M.Ed. | 27 |
| 3. Doctorate | 0 |

# APPENDIX B

# SCALES AND SCORES

## HOLLINGSHEAD 2 FACTOR SES SCORE

Which one of the following comes closest to describing the work of your father? Mark only one answer. If he works or worked on more than one job, mark the one which he spent most of his time.

1. 6% Farm owner and/or manager
2. 0 Farm worker
3. 19 Workman or laborer--such as factory or mine worker, filling station attendant, etc.
4. 0 Private house worker--such as a servant, handyman, etc.
5. 3 Service worker--such as barber, policeman, waiter, fireman, etc.
6. 12 Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.
7. 21 Skilled worker or foreman--such as a baker, carpenter, electrician, tailor, foreman in a factory or mine, etc.
8. 6 Clerical worker--such as bank teller, bookkeeper, sales clerk, mail carrier, messenger, etc.
9. 3 Salesman--such as store salesman, real estate or insurance salesman, factory representative, etc.
10. 8 Manager or executive--such as sales manager, store manager, office manager, business manager, factory supervisor, etc.
11. 12 Proprietor or owner--such as owner of a small business, wholesaler, retailer, contractor, restaurant owner, etc.
12. 10 Professional--such as accountant, clergyman, dentist, engineer, lawyer, librarian, scientist, etc.

How far did your father go in school? (Check the highest level completed).

1. 20% Some grade school
2. 22 Finished grade school
3. 16 Some high school
4. 17 Finished high school
5. 12 Some college
6. 6 Finished college
7. 7 More than college

Variable No. 1 (occupation) was recorded as follows:

| Code | Recode | % |
|---|---|---|
| 12 | 1 | 10 |
| 11 | 2 | 12 |
| 10 | 3 | 8 |
| 1 | | |
| 8 | 4 | 14 |
| 9 | | |
| 7 | 5 | 21 |
| 5 | | |
| 6 | 6 | 16 |
| 2 | | |
| 3 | | |
| 4 | 7 | 18 |

Variable No. 2 (education) was reverse scored. The uncollapsed Hollingshead scores were obtained for each individual by weighting the education score by 4 and the occupation score by 7 and summing the weighted scores.

The Hollingshead scores were then collapsed on the basis of the marginals as follows:

| Range | Class | % |
|---|---|---|
| 11-19 | 1 | 11 |
| 20-37 | 2 | 14 |
| 38-50 | 3 | 16 |
| 51-65 | 4 | 35 |
| 66-77 | 5 | 25 |

To obtain a trichotomous SES breakdown, classes 1 and 2 were combined as were 3 and 4, giving the following pattern:

| Code | Class | % |
|---|---|---|
| 1 | "High" | 25 |
| 2 | "Middle" | 50 |
| 3 | "Low" | 25 |

WORK-SUCCESS SCALE

| No. | Item | Response Categories | | | | |
|---|---|---|---|---|---|---|
| | | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
| 1. | I hesitate to assume responsibility. | 2% | 9% | 5% | 56% | 28% |
| 2. | I make strong demands of myself. | 14 | 45 | 19 | 20 | 2 |
| 3. | The main thing in life is for a person to want to do something important. | 11 | 31 | 15 | 42 | 2 |
| 4. | Every person should make a strong effort to improve his social position. | 16 | 47 | 17 | 18 | 1 |

## WORK-SUCCESS SCALE (Continued)

| No. | Item | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|---|
| 5. | The successful people in our society are usually the most honest. | 4 | 13 | 19 | 54 | 11 |

| No. | Item | (1) Very Important | (2) Fairly Important | (3) Not Very Important | (4) Very Important |
|---|---|---|---|---|---|
| 6. | How important to you, personally, is it to get ahead in life. | 32% | 58% | 10% | 0% |

| No. | Item | (1) Independent | (2) Successful | (3) Well-liked |
|---|---|---|---|---|
| 7. | If you had your choice, which of the following would you most like to be. | 25% | 30% | 45% |

Item 1 was reverse socred and the items collapsed as indicated. Reproducibility was found to be .91 after scalogram analysis.

Scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-7 | 1 | 51 | High work-success orientation |
| 8-11 | 2 | 49 | Low work-success orientation |

## TRADITIONAL DECORUM SCALE

| No. | Item | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|---|
| | For each of the following statements, check how strongly you agree or disagree with them. | | | | | |
| 1. | I am a strong believer in customs and traditions | 7% | 30% | 23% | 33% | 6% |
| 2. | I feel that good manners are very necessary for everyone. | 53 | 39 | 4 | 4 | 1 |
| 3. | My family usually waits until the head of the house is present before we have dinner. | 13 | 52 | 6 | 25 | 4 |
| 4. | In my family we think the old-time customs and traditions are important. | 8 | 40 | 18 | 33 | 1 |

On the basis of the responses collapsed as indicated above, a Guttman scale with a coefficient of reproducibility of .89 was formed.

Guttman scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-6 | 1 | 42 | Traditional |
| 7-8 | 2 | 58 | Not traditional |

### PREJUDICE SCALE

| No. | Item | Response Categories | | | | |
|---|---|---|---|---|---|---|

For each of the following statements, check how strongly you agree or disagree with them.

| No. | Item | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|---|---|---|---|---|---|
| 70 | Social clubs have a right to not allow members of minority groups to join. | 11% | 34% | 16% | 25% | 15% |
| 85 | Negroes today are demanding more than they have a right to. | 5 | 25 | 24 | 36 | 11 |
| 86 | Negroes today are trying to push in where they are not wanted. | 8 | 43 | 24 | 21 | 4 |
| 231 | Certain cultural and ethnic groups are inherently inferior. | 1 | 13 | 16 | 43 | 26 |

The items were collapsed as indicated above and subjected to scalogram analysis. A quasi-scale with a coefficient of reproducibility of .84 was obtained.

Guttman Scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-6 | 1 | 48 | Not prejudiced |
| 7-10 | 2 | 52 | Prejudiced |

## INTER-PERSONAL ALIENATION SCALE

| No. | Item | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|---|
| 1 | No one is going to care much what happens to you. | 3% | 13% | 5% | 56% | 23% |
| 2 | Most people are more inclined to help others. | 6 | 63 | 10 | 18 | 3 |
| 3 | If you won't watch yourself, people will take advantage of you. | 8 | 44 | 12 | 33 | 3 |
| 4 | Most people can be trusted. | 13 | 64 | 8 | 12 | 4 |
| 5 | You can't be too careful in your dealings with people. | 9 | 39 | 16 | 33 | 2 |

Variables 2 and 4 were reverse scored and the items collapsed as indicated. The items were found to approximate Guttman's "quasi-scale" pattern with coefficient of reproducibility of .86.

Scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-4 | 1 | 55 | High interpersonal alienation |
| 5-8 | 2 | 45 | Low interpersonal alienation |

## ADMINISTRATION SCALE

| No. | Item | Response Categories | | | | |
|---|---|---|---|---|---|---|
| How strongly do you disagree with the following statements? | | | | | | |
| | | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
| 1 | My supervisor gives us credit and praise for work well done. | 12% | 48% | 12% | 21% | 7% |
| 2 | If I have a complaint to make, I feel free to talk to the administration. | 16 | 50 | 10 | 16 | 7 |
| 3. | The administration at this school sees to it that there is cooperation between departments. | 6 | 36 | 23 | 28 | 7 |
| 4 | Changes are made at this school with little regard for the welfare of teachers | 10 | 25 | 23 | 37 | 5 |
| 5 | The administration keeps us in the dark about things we ought to know. | 11 | 22 | 24 | 37 | 6 |

Items number 4 and 5 were reverse scored and the response categories collapsed as indicated above. Subjecting the items to scalogram analysis, a Guttman scale with a coefficient of reproducibility of .90 was obtained.

The Guttman scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-5 | 1 | 50 | Positive toward administration |
| 6-11 | 2 | 50 | Negative toward administration |

## PROFESSIONAL JOB SATISFACTION SCALE

| No. | Item | Response Categories |
|---|---|---|
| 1 | Knowing what you now know, do you think you could choose a career in education if you had to make the choice again? | 1. 4% Definitely no<br>2. 16 Probably no<br>3. 44 Probably yes<br>4. 36 Definitely yes |
| 2 | How easily could you be persuaded to go into some kind of work other than education? | 1. 8% Very easily<br>2. 22 Fairly easily<br>3. 51 Not very easily<br>4. 20 Not easily at all |
| 3. | In general, how do you regard teaching? | 1. 20% Highly professional<br>2. 50 Professional<br>3. 25 Semi-professional<br>4. 4 Not at all professional<br>5. 2 Don't know |
| 4 | I am disappointed that I ever went into teaching. | 1. 1% Strongly agree<br>2. 3 Agree<br>3. 14 Undecided<br>4. 43 Disagree<br>5. 39 Strongly disagree |

Item number 3 was reverse scored and the response categories of all variables collapsed as indicated above. Subjecting the items to scalogram analysis revealed a Guttman scale with coefficient of reproducibility of .91.

Guttman scale scores were collapsed as indicated below.

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-4 | 1 | 31 | Low satisfaction |
| 5-6 | 2 | 36 | Medium satisfaction |
| 7-9 | 3 | 34 | High satisfaction |

## SUBJECTIVE LEVEL OF POVERTY INFORMATION SCALE

| No. | Item | Highly Informed | Fairly Informed | Somewhat Informed | Poorly Informed | Not at all Informed |
|---|---|---|---|---|---|---|
| | How well informed do you feel about each of the following areas? | | | | | |
| 1 | Family and home life of poverty group. | 3% | 28% | 41% | 25% | 3% |
| 2 | The school drop-out problem. | 4 | 30 | 42 | 22 | 3 |
| 3 | Barriers or resistances of poverty group to help. | 1 | 17 | 41 | 35 | 5 |
| 4 | Motivational factors in increasing involvement of poverty group. | 2 | 16 | 37 | 39 | 6 |
| 5 | Classroom behavior of poverty group. | 6 | 38 | 38 | 16 | 2 |
| 6 | Teacher attitudes towards poverty group. | 6 | 35 | 38 | 18 | 3 |
| 7 | Problems of disciplining poverty group. | 4 | 30 | 39 | 24 | 3 |
| 8 | Counseling methods best suited to poverty group. | 2 | 16 | 29 | 41 | 12 |
| 9 | Adjustment problems of poverty group. | 2 | 22 | 35 | 35 | 6 |

The items were collapsed as indicated above and subjected to scalogram analysis producing a Guttman scale with coefficient of reproducibility of .90.

Guttman scale scores were collapsed as indicated below:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-14 | 1 | 52 | Highly informed |
| 15-19 | 2 | 48 | Not informed |

## POVERTY EXPOSURE

| No. | Item | Response Categories |
|---|---|---|
| 1 | How much experience have you had with pupils from a poverty background? | 1. 6% A great deal<br>2. 38 A fair amount<br>3. 34 Some, but not much<br>4. 22 Very little |
| 2 | How capable do you personally feel for teaching pupils from a poverty background? | 1. 12% Very capable<br>2. 59 Fairly capable<br>3. 24 Poorly capable<br>4. 5 Not capable |
| 3. | How well informed do you feel about the problems of educating pupils from low income families? | 1. 4% Very well informed<br>2. 45 Fairly well informed<br>3. 51 Not well informed |
| 4 | How much have you read about this problem? | 1. 4% A great deal<br>2. 40 A fair amount<br>3. 42 Some, but not much<br>4. 14 Very little |

The indicated collapses in response categories were made and the items were found to form a scale with reproducibility coefficient of .91.

Scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-4 | 1 | 42 | High exposure |
| 5-7 | 2 | 58 | Low exposure |

ATTITUDE TO POVERTY GROUP SCORE

| No. | Item | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|---|
| | How strongly do you agree or disagree with the following statements? | | | | | |
| 1 | The social needs of the citizen are the responsibility of themselves and their families and not of the community. | 5% | 14% | 12% | 58% | 12% |
| 2 | Some people just want to live in slum areas. | 3 | 32 | 16 | 36 | 13 |
| 3 | Anyone with the will power can raise himself from poverty. | 15 | 45 | 16 | 23 | 1 |
| 4 | It is a bad idea to give free medical care to the poor. | 3 | 5 | 22 | 57 | 13 |
| 5 | Too many groups are trying to help the poor. | 3 | 16 | 22 | 53 | 6 |
| 6 | The poverty program will probably fail. | 3 | 11 | 48 | 33 | 5 |
| 7 | People on relief should not be allowed to own television sets. | 2 | 10 | 19 | 56 | 12 |
| 8 | Most of the money spent on the "war on poverty" will be wasted. | 5 | 24 | 35 | 31 | 4 |

The items all emerged with their highest loadings on the first of four factors in a varimax factor analysis of these and 24 additional "poverty" items. The itmes are ranked by loading on this factor. The consistency of the factor pattern argued for the retention of all these items in a Likert score.

FACTOR I (of four)

| Question | Loading |
|---|---|
| The poverty program will probably fail. | .740 |
| Most of the money spent on the "war on poverty" will be wasted. | .721 |
| Too many groups are trying to help the poor. | .664 |
| People on relief should not be allowed to own T.V. sets. | .601 |
| The social needs of the citizens are the responsibility of themselves, not of the community. | .572 |
| It is a bad idea to give free medical care to the poor. | .527 |
| Some people just want to live in slum areas. | .446 |
| Anyone with will power can raise himself from poverty. | .437 |

The items were summed and dichotomized to produce the following score.

| Code | % | Content of Code |
|---|---|---|
| 1 | 47 | Unfavorable to Poverty Group |
| 2 | 53 | Favorable to Poverty Group |

## SCALE OF ATTITUDES TOWARD THE EDUCATIONAL PROBLEMS OF PUPILS FROM POVERTY BACKGROUND

| No. | Item | Response Categories | |
|---|---|---|---|
| 81 | In most communities, schools are good enough as they are. | 1. 2% | Strongly agree |
| | | 2. 6 | Agree |
| | | 3. 8 | Undecided |
| | | 4. 57 | Disagree |
| | | 5. 28 | Strongly disagree |
| 178 | How well suited do you regard the current system of public education for teaching children from poverty backgrounds? | 1. 2% | Very well suited |
| | | 2. 37 | Fairly well suited |
| | | 3. 52 | Not well suited |
| | | 4. 9 | Badly suited |
| 186 | In your opinion, how seriously handicapped do you feel children from low income families are in getting a good public school education? | 1. 18% | Very seriously handicapped |
| | | 2. 50 | Fairly handicapped |
| | | 3. 29 | Not very handicapped |
| | | 4. 3 | Not at all handicapped. |
| 222 | Public schools have tried their best to compensate for the educational retardation of the disadvantaged. | 1. 1% | Strongly agree |
| | | 2. 27 | Agree |
| | | 3. 22 | Undecided |
| | | 4. 46 | Disagree |
| | | 5. 4 | Strongly disagree |
| 230 | "You can lead a horse to water but you can't make him drink it," best describes the educational situation of disadvantaged students. | 1. 4% | Strongly agree |
| | | 2. 39 | Agree |
| | | 3. 19 | Undecided |
| | | 4. 33 | Disagree |
| | | 5. 5 | Strongly disagree |

The items were collapsed as indicated; a scalogram analysis revealed a coefficient of reproducibility of .92.

Scale scores were collapsed as follows:

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-3 | 1 | 43 | Sympathetic |
| 4-6 | 2 | 57 | Non Sympathetic |

## ATTITUDES TOWARD SPECIAL TRAINING SCALE

| No. | Item | Response Categories |
|---|---|---|
| 1 | How valuable do you think it would be for you to have some special training in teaching pupils from a poverty background? | 1. 40% Very valuable<br>2. 43 Fairly valuable<br>3. 14 Not very valuable<br>4. 3 Not at all valuable |
| 2 | How willing would you be to take special training in teaching pupils from a poverty background? | 1. 28% Very willing<br>2. 46 Fairly willing<br>3. 21 Not very willing<br>4. 5 Not at all willing |
| 3 | Would you favor or oppose special training for teachers on how to deal with pupils from a poverty background? | 1. 33% Strongly favor<br>2. 42 Favor<br>3. 21 Undecided<br>4. 2 Oppose<br>5. 2 Strongly oppose |
| 4 | Would you be in favor or opposed to a special seminar at your school to deal with this problem? | 1. 27% Very much in favor<br>2. 42 Somewhat in favor<br>3. 19 Undecided<br>4. 8 Somewhat opposed<br>5. 4 Very much opposed |
| 5 | How much do you think such a seminar would accomplish? | 1. 15% A great deal<br>2. 42 A fair amount<br>3. 34 Some, but not much<br>4. 9 Very little |

The items were collapsed as indicated and were found to form a Guttman scale with reproducibility coefficient of .92.

| Range | Code | % | Content of Code |
|---|---|---|---|
| 1-7 | 1 | 46 | Favorable to training |
| 8-12 | 2 | 54 | Unfavorable to training |

# APPENDIX C

## TABLES DISCUSSED IN TEXT

TABLE 1.01.--Relationship Between Teacher Background Characteristics and Poverty Variables

| Background Characteristics | Base | Poverty Experience<br>Per cent High Information | Poverty Experience<br>Per cent High Exposure | Poverty Attitude<br>Per cent Negative Poverty Group | Poverty Attitude<br>Per cent Negative Poverty Pupils |
|---|---|---|---|---|---|
| Socio-economic Indices | | | | | |
| Subjective SES | | | | | |
| Upper | 69 | 54 | 52 | 54 | 49 |
| Middle | 195 | 57 | 39 | 45 | 58 |
| Lower Middle | 61 | 43 | 33 | 51 | 56 |
| Working | 66 | 51 | 54* | 42 | 56 |
| Hollingshead SES | | | | | |
| High | 94 | 52 | 36 | 51 | 56 |
| Medium | 194 | 52 | 40 | 48 | 54 |
| Low | 94 | 60 | 53* | 42 | 61 |
| Religion | | | | | |
| Protestant | 207 | 48 | 40 | 53 | 60 |
| Catholic | 122 | 53 | 48 | 41* | 53 |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 1.02.--Relationship Between Teacher Status Characteristics and Poverty Variables

| Status Characteristics | Base | Poverty Experience<br>Per cent High Information | Poverty Experience<br>Per cent High Exposure | Poverty Attitude<br>Per cent Negative Poverty Group | Poverty Attitude<br>Per cent Negative Poverty Pupils |
|---|---|---|---|---|---|
| Sex | | | | | |
| Male | 225 | 54 | 46 | 42 | 60 |
| Female | 156 | 52 | 36 | 45 | 51 |
| Income | | | | | |
| High | 102 | 59 | 48 | 54 | 57 |
| Medium | 221 | 52 | 42 | 47 | 52 |
| Low | 63 | 51 | 30 | 35 | 51 |
| Age | | | | | |
| Under 24 | 100 | 48 | 27 | 43 | 56 |
| 25-39 | 141 | 56 | 42 | 44 | 49 |
| 40+ | 106 | 52 | 54<br>* | 47 | 61 |
| Years teaching | | | | | |
| 0-2 | 106 | 49 | 30 | 39 | 56 |
| 3-8 | 156 | 52 | 45 | 30 | 52 |
| 9+ | 121 | 56 | 47<br>* | 47 | 64 |
| Advanced Degree | | | | | |
| Yes | 103 | 58 | 47 | 46 | 52 |
| No | 281 | 51 | 41 | 46 | 58 |

*Indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 1.03.--The Relationship Between Social Class and Teacher Attitude Toward Poverty Group and Pupils by Religion (per cent Negative)

| | Attitude toward Poverty Group | | Attitude toward Poverty Pupils | |
|---|---|---|---|---|
| Social Class | Protestant | Catholic | Protestant | Catholic |
| High | 54<br>(55) | 53<br>(17) | 60<br>(55) | 59<br>(17) |
| Medium | 55<br>(116) | 42<br>(48) | 60<br>(116) | 44<br>(48) |
| Low | 45<br>(29) | 40<br>(53) | 59<br>(29) | 60<br>(53) |

All differences are non-significant.

TABLE 1.04.--The Relationship Between Social Class and Teacher Attitude Toward Poverty Group and Pupils by Sex of Teacher (per cent Negative)

| Social Class | Attitude toward Poverty Group |  | Attitude toward Poverty Pupils |  |
|---|---|---|---|---|
|  | Male | Female | Male | Female |
| High | 44<br>(34) | 57<br>(54) | 71<br>(34) | 48<br>(84) |
| Medium | 51<br>(111) | 43<br>(75) | 44<br>(111) | 48<br>(75) |
| Low | 44<br>(71) | 29<br>(21)<br>* | 39<br>(71)<br>* | 57<br>(21) |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 1.05.--The Relationship Between Social Class and Teacher Attitude Toward Poverty Group and Pupils by Age of Teacher (per cent Negative)

| | Attitude toward Poverty Group | | | Attitude toward Poverty Pupils | | |
|---|---|---|---|---|---|---|
| | Teacher Age | | | Teacher Age | | |
| Social Class | Under 25 | 25-39 | Over 39 | Under 25 | 25-39 | Over 39 |
| High | 48<br>(29) | 48<br>(27) | 61<br>(23) | 59<br>(29) | 52<br>(27) | 61<br>(23) |
| Medium | 45<br>(53) | 46<br>(65) | 45<br>(56) | 49<br>(53) | 42<br>(65) | 63<br>(56) |
| Low | 26<br>(15)<br>* | 40<br>(43) | 39<br>(23)<br>* | 73<br>(15)<br>* | 58<br>(43) | 52<br>(23) |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 2.01.--The Relationship Between Teacher Background Characteristics and Personal and Professional Values

| | | Class-Related Values | | Other-Oriented Values | | Professional Values | |
|---|---|---|---|---|---|---|---|
| Background Characteristics | Base | Per cent Success-Oriented | Per cent Traditional | Per cent Prejudice | Per cent Alienated | Per cent "Low" Job Satisfaction | Per cent Negative to Administration |
| Socio-economic Indices | | | | | | | |
| Subjective SES | | | | | | | |
| Upper | 69 | 55 | 55 | 51 | 55 | 28 | 49 |
| Middle | 195 | 52 | 44 | 53 | 54 | 26 | 45 |
| Lower Middle | 61 | 39 | 41 | 54 | 57 | 38 | 61 |
| Working | 66 | 58 | 27 | 50 | 56 | 39 | 54 |
| | | | * | | | * | |
| Hollingshead SES | | | | | | | |
| High | 94 | 54 | 53 | 55 | 48 | 28 | 47 |
| Medium | 194 | 50 | 42 | 51 | 54 | 27 | 51 |
| Low | 94 | 51 | 32 | 49 | 62 | 38 | 51 |
| | | | * | | * | * | |
| Religion | | | | | | | |
| Protestant | 207 | 45 | 41 | 56 | 56 | 28 | 48 |
| Catholic | 122 | 65 | 44 | 44 | 58 | 38 | 51 |
| | | * | | * | | * | |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 2.02.--The Relationship Between Teacher Status Variables and Personal and Professional Value

| | | Class-Related Values | | Other-Oriented Values | | Professional Values | |
|---|---|---|---|---|---|---|---|
| Status Characteristics | Base | Per cent Success-Oriented | Per cent Traditional | Per cent Prejudiced | Per cent Alienated | Per cent "Low" Job Satisfaction | Per cent Negative to Administration |
| Sex | | | | | | | |
| Male | 225 | 58 | 35 | 55 | 60 | 34 | 50 |
| Female | 156 | 42 | 54 | 45 | 48 | 26 | 49 |
| | | * | * | * | * | * | |
| Income | | | | | | | |
| High | 102 | 50 | 55 | 61 | 52 | 24 | 47 |
| Medium | 221 | 55 | 59 | 49 | 56 | 32 | 51 |
| Low | 63 | 38 | 59 | 43 | 56 | 35 | 49 |
| | | | | * | | | |
| Age | | | | | | | |
| Under 24 | 100 | 49 | 41 | 47 | 56 | 33 | 56 |
| 25-39 | 141 | 50 | 38 | 52 | 55 | 30 | 53 |
| 40+ | 106 | 56 | 52 | 53 | 55 | 32 | 44 |
| Years Teaching | | | | | | | |
| 0-2 | 106 | 46 | 38 | 47 | 57 | 32 | 47 |
| 3-8 | 158 | 54 | 42 | 54 | 53 | 31 | 56 |
| 9+ | 121 | 51 | 46 | 52 | 56 | 29 | 45 |
| Advanced Degree | | | | | | | |
| Yes | 103 | 52 | 48 | 53 | 54 | 30 | 46 |
| No | 281 | 51 | 41 | 51 | 56 | 32 | 51 |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 2.03.--The Relationship Between Social Class and Social Class-Related Values by Teacher Religion

| Social Class | Social Class-Related Values | | | |
|---|---|---|---|---|
| | Per cent Traditional | | Per cent Success-Oriented | |
| | Religion | | Religion | |
| | Protestant | Catholic | Protestant | Catholic |
| High | 46<br>(54) | 65<br>(17) | 47<br>(55) | 59<br>(17) |
| Medium | 43<br>(116) | 46<br>(48) | 50<br>(116) | 58<br>(48) |
| Low | 24<br>(29) | 38<br>(53) | 24<br>(29) | 70<br>(53) |

All differences are significant at or below the .05 level as tested by Chi-square

TABLE 2.04.--The Relationship Between Social Class and Other-Oriented Values by Teacher Religion

| Social Class | Other-Oriented Values<br>Per cent Prejudiced<br>Religion | | Per cent Inter-personally Alienated<br>Religion | |
|---|---|---|---|---|
| | Protestant | Catholic | Protestant | Catholic |
| High | 58<br>(55) | 41<br>(17) | 45<br>(55) | 76<br>(17) |
| Medium | 55<br>(116) | 40<br>(48) | 56<br>(116) | 52<br>(48) |
| Low | 55<br>(29) | 49<br>(53) | 62<br>(29)<br>* | 60<br>(53)<br>* |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 2.05.--The Relationship Between Social Class and Professional Values by Teacher Religion

| Social Class | Professional Values | | | |
|---|---|---|---|---|
| | Per cent Favorable Toward Administration | | Per cent Low Job Satisfaction | |
| | Religion | | Religion | |
| | Protestant | Catholic | Protestant | Catholic |
| High | 54<br>(54) | 29<br>(17) | 31<br>(54) | 25<br>(17) |
| Medium | 55<br>(116) | 48<br>(48) | 22<br>(116) | 31<br>(48) |
| Low | 45<br>(29) | 57<br>(53)<br>* | 38<br>(29) | 43<br>(53)<br>* |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 3.01.--The Relationship Between Personal and Professional Values and Attitudes Toward the Poverty Group and the Educational Problems of Pupils from Poverty Backgrounds

| Characteristic of Teacher | Base | Per cent Negative to Poverty Group | Per cent Negative to Poverty Pupils |
|---|---|---|---|
| Class-Oriented Values | | | |
| Success-Orientation | | | |
| Yes | 205 | 52 | 61 |
| No | 195 | 42 | 52 |
| | | * | |
| Traditionalism | | | |
| Yes | 169 | 54 | 56 |
| No | 231 | 42 | 57 |
| | | * | |
| Other-Oriented Values | | | |
| Prejudiced | | | |
| Yes | 208 | 63 | 60 |
| No | 192 | 30 | 54 |
| | | * | |
| Interpersonally Alienated | | | |
| Yes | 219 | 53 | 63 |
| No | 181 | 40 | 50 |
| | | * | * |
| Professional Values | | | |
| Job Satisfaction | | | |
| Low | 123 | 51 | 62 |
| Medium | 143 | 44 | 54 |
| High | 134 | 47 | 55 |
| Attitude toward Administration | | | |
| Favorable | | | |
| Unfavorable | 200 | 46 | 54 |
| Favorable | 199 | 48 | 60 |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 3.02.--Conjoint Effect of Prejudice and Traditionalism on Teachers' Attitudes Toward the Poverty Group (per cent Negative)

| | | Prejudiced | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Traditional | yes | 70<br>(86) | 39<br>(83) | 31 |
| | no | 58<br>(122) | 24<br>(109) | 34 |
| percentage difference | | 12 | 15 | |

TABLE 3.03.--Conjoint Effect of Prejudice and Traditionalism on Teachers' Attitudes Toward Poverty Pupils (per cent Negative)

| | | Prejudiced | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Traditional | yes | 74<br>(86) | 58<br>(83) | 16 |
| | no | 61<br>(122) | 43<br>(109) | 18 |
| percentage difference | | 13 | 15 | |

TABLE 3.04.--Conjoint Effect of Prejudice and Success-Orientation on Teachers' Attitudes Toward the Poverty Group (per cent Negative)

| | | Prejudiced | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Success-Oriented | yes | 68 (115) | 32 (90) | 36 |
| | no | 57 (93) | 28 (102) | 29 |
| percentage difference | | 11 | 4 | |

TABLE 3.05.--Conjoint Effect of Prejudice and Success-Orientation on Teachers' Attitudes Toward Poverty Pupils (per cent Negative)

| | | Prejudiced | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Success-oriented | yes | 72<br>(115) | 53<br>(90) | 19 |
| | no | 59<br>(93) | 46<br>(102) | 13 |
| percentage difference | | 13 | 7 | |

TABLE 3.06.--Conjoint Effect of Traditionalism and Alienation on Teachers' Attitudes Toward the Poverty Group (per cent Negative)

| | | Traditionalism | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Alienation | yes | 62<br>(89) | 48<br>(130) | 14 |
| | no | 46<br>(80) | 35<br>(101) | 11 |
| percentage difference | | 16 | 13 | |

TABLE 3.07.--Conjoint Effect of Traditionalism and Alienation on Teachers' Attitudes Toward Poverty Pupils (per cent Negative)

| | | Traditionalism | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Alienation | yes | 65 (89) | 61 (130) | 4 |
| | no | 46 (80) | 53 (101) | - 7 |
| percentage difference | | 19 | 8 | |

TABLE 3.08.--Effect of Personal Values Operating on Poverty Variables

| Teacher Type* | (N) | Per cent Negative Toward Poverty Group | Per cent Negative Toward Poverty Pupils |
|---|---|---|---|
| Type I | ( 32) | 72 | 69 |
| Type II | (100) | 64 | 66 |
| Type III | (141) | 53 | 52 |
| Type IV | ( 89) | 30 | 53 |
| Type V | ( 37) | 19 | 49 |

*Type I = Traditional, Success-Oriented, Prejudiced, Alienated
Type II = Three of the above reported
Type III = Two of the above reported
Type IV = One of the above reported
Type V = Positive Evaluations reported for all of above

TABLE 3.09.--Traditionalism and Teacher Attitude Toward the Poverty Group by Selected Demographic Characteristics (per cent Negative)

| Demographic Characteristic | Traditional | Non-traditional |
|---|---|---|
| 1. Social Class | | |
| High* | 60<br>(50) | 41<br>(44) |
| Medium* | 55<br>(82) | 43<br>(112) |
| Low | 47<br>(30) | 39<br>(64) |
| 2. Age | | |
| Under 25* | 54<br>(41) | 36<br>(59) |
| 25-39 | 50<br>(54) | 40<br>(87) |
| Over 39 | 51<br>(55) | 43<br>(51) |
| 3. Sex | | |
| Male | 53<br>(79) | 45<br>(149) |
| Female* | 53<br>(83) | 38<br>(72) |

*Relationship is significant as tested by Chi-square for the group indicated.

TABLE 3.10.--Prejudice and Teacher Attitude Toward the Poverty Group by Selected Demographic Characteristics (per cent Negative)

| Demographic Characteristic | Prejudiced | Not Prejudiced |
|---|---|---|
| 1. Social Class | | |
| High | 65<br>(52) | 33<br>(42) |
| Medium | 63<br>(99) | 33<br>(95) |
| Low | 59<br>(46) | 25<br>(48) |
| 2. Age | | |
| Under 25 | 65<br>(47) | 25<br>(53) |
| 25-39 | 63<br>(73) | 24<br>(24) |
| Over 39 | 57<br>(56) | 36<br>(50) |
| 3. Sex | | |
| Male | 64<br>(124) | 28<br>(101) |
| Female | 61<br>(70) | 33<br>(86) |

All differences are significant at or below the .05 level of significance as measured by the Chi-square.

TABLE 4.01.--Relationship Between Poverty Experience and Poverty Attitude (per cent Negative)

| Poverty Experience | Attitude Toward Poverty Group | Attitude Toward Poverty Pupils |
|---|---|---|
| Level of Information | | |
| High | 42 | 54 |
| Low | 52<br>* | 60 |
| Level of Exposure | | |
| High | 50 | 63 |
| Low | 45 | 52<br>* |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 4.02.--Relationship Between Class-Related Values and Poverty Attitudes by Poverty Exposure (per cent Negative)

| Class-Related Values | Attitude to Poverty Group |  | Attitude to Poverty Pupils |  |
|---|---|---|---|---|
|  | Exposure |  | Exposure |  |
|  | High | Low | High | Low |
| Success-Oriented |  |  |  |  |
| Yes | 54<br>(98) | 51<br>(105) | 63<br>(98) | 59<br>(105) |
| No | 46<br>(67) | 40<br>(124)<br>* | 61<br>(67) | 47<br>(124)<br>* |
| Traditional |  |  |  |  |
| Yes | 60<br>(71) | 51<br>(96) | 62<br>(71) | 52<br>(99) |
| No | 56<br>(94) | 41<br>(133)<br>* | 63<br>(94) | 53<br>(133) |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 4.03.--Relationship Between Other-Oriented Values and Poverty Attitudes by Poverty Exposure (per cent Negative)

| Other-Oriented Values | Attitude to Poverty Group | | Attitude to Poverty Pupils | |
|---|---|---|---|---|
| | Exposure | | Exposure | |
| | High | Low | High | Low |
| Prejudiced | | | | |
| Yes | 67 (87) | 61 (116) | 71 (87) | 51 (116) |
| No | 33 (78) | 28 (113) | 52 (78) | 54 (113) |
| | * | * | * | |
| Alienated | | | | |
| Yes | 57 (99) | 50 (117) | 66 (99) | 60 (117) |
| No | 27 (66) | 40 (112) | 58 (66) | 45 (112) |
| | * | * | | * |

*indicates relationship significant at or below .05 level as tested by Chi-square.

TABLE 5.01.--The Relationship Between Poverty Attitudes, Professional Values, Poverty Experience and Attitude Toward Special Training

| Characteristic of Teacher | Base | Per cent Negative Toward Special Training |
|---|---|---|
| Poverty Attitudes | | |
| Attitude to Poverty Group | | |
| Negative | 189 | 63 |
| Positive | 229 | 46 |
| | | * |
| Attitude to Poverty Pupils | | |
| Negative | 227 | 64 |
| Positive | 171 | 40 |
| | | * |
| Professional Values | | |
| Attitude to Administration | | |
| Negative | 198 | 59 |
| Positive | 199 | 50 |
| Job Satisfaction | | |
| Low | 123 | 54 |
| Medium | 143 | 55 |
| High | 134 | 51 |
| Poverty Exposure | | |
| Poverty Exposure | | |
| High | 165 | 49 |
| Low | 229 | 58 |
| | | * |
| Poverty Information | | |
| High | 203 | 51 |
| Low | 187 | 55 |

*indicates relationship significznt at or below .05 level as tested by Chi-square.

TABLE 5.02.--Conjoint Effect of Poverty Group Attitude and Attitude to Poverty Pupils on Teachers' Attitudes Toward Special Training (per cent Negative)

| | | Negative Toward Poverty Group | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Negative to Poverty Pupils | yes | 71<br>(124) | 56<br>(103) | 15 |
| | no | 48<br>(67) | 36<br>(106) | 12 |
| percentage difference | | 23 | 20 | |

TABLE 5.03.--Conjoint Effect of Attitude Toward Administration and Poverty Group Attitude on Teachers' Attitudes Toward Special Training (per cent Negative)

| | | Negative to Administration | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Negative to Poverty Group | yes | 69<br>(93) | 57<br>(96) | 12 |
| | no | 48<br>(108) | 43<br>(103) | 5 |
| percentage difference | | 21 | 14 | |

TABLE 5.04.--Conjoint Effect of School Administration Attitude and Poverty Pupil Attitude on Teachers' Attitudes Toward Special Training (per cent negative)

| | | Negative to Administration | | |
|---|---|---|---|---|
| | | yes | no | percentage difference |
| Negative to Poverty Pupils | yes | 69<br>(108) | 60<br>(119) | 9 |
| | no | 44<br>(93) | 35<br>(80) | 9 |
| percentage difference | | 25 | 25 | |

TABLE 5.05.--Poverty Group Attitude and Special Training Attitude by Teachers' Exposure to Poverty (per cent Negative)

| | | Exposure | |
|---|---|---|---|
| | | High | Low |
| Poverty Group Attitude | Negative | 61<br>(84) | 64<br>(103) |
| | Positive | 36<br>(81) | 52<br>(126) |

Differences are significant at or below the .05 level as tested by Chi-square.

TABLE 5.06.--Poverty Pupil Attitude and Special Training Receptivity by Teachers' Exposure to Poverty (per cent Negative)

| | | Exposure | |
|---|---|---|---|
| | | High | Low |
| Poverty Pupil Attitude | Negative | 58<br>(103) | 68<br>(120) |
| | Positive | 32<br>(62) | 45<br>(109) |

Differences are significant at or below the .05 level as tested by Chi-square.

TABLE 5.07.--The Effect of Attitudes Toward the Poverty Group and Poverty Pupils in Training by Poverty Exposure (per cent Negative Toward Training)

| | Poverty Exposure | |
|---|---|---|
| Teacher Type | High | Low |
| Favorable to Poverty Pupils and Poverty Group | 26<br>(39) | 42<br>(67) |
| Favorable to Poverty Pupils; Negative to Poverty Group | 43<br>(23) | 50<br>(42) |
| Negative to Poverty Pupils and Favorable to Poverty Group | 45<br>(42) | 64<br>(59) |
| Negative to both Poverty Pupils and Poverty Group | 67<br>(61) | 74<br>(61) |

Differences are significant at or below the .05 level as tested by Chi-square.

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# FAMILY STRUCTURE AND COLLEGE PLANS OF SIBLINGS FROM BLUE COLLAR FAMILIES

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# PREFACE

A research endeavor is seldom a solitary effort. As members of an academic community, we, over the course of time, may experience from our colleagues encouragement, direction and reward. This work has benefited from such interaction.

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# I. INTRODUCTION

## A. Statement of the Problem

An accepted function of the family is the initial placement of the child in the status structure of society. The child's social status is identical to his parents until his own "achievements" determine otherwise. In addition to the initial placement, the family of origin may also be instrumental in determining the child's adult status level. A recent convergence in social mobility theory[1] accepts a state of status inconsistency as a likely impetus to social mobility. Parental status strains in the family of origin may be resolved by pushing the child toward the next rung of the social ladder.[2] Variables intervening between status inconsistency and mobility have yet to be fully specified. Nevertheless, it may be assumed that status inconsistency in the family of origin is recognized as playing a potentially significant role.

---

[1] W. T. Martin, "Socially Induced Stress: Some Converging Theories," Pacific Sociological Review, 8, (Fall, 1965), pp. 63-69.

[2] See, for example, Seymour M. Lipset and Reinhard Bendix, Social Mobility in Industrial Society (Berkeley, California: University of California Press, 1960), pp. 249-250; Irving Krauss, "Sources of Educational Aspirations Among Working Class Youth, American Sociological Review (1964), pp. 867-879. Working class youth with mobility strivings often have a mother who has married "down" or with education that out-ranks the father, a father whose occupation is inconsistent with his education, and a grandfather who is a non-manual worker.

The size of the family of origin and the size of the family of procreation are other variables which have been given much consideration in relation to roles played *vis à vis* mobility.[3] Since education is the chief mobility route in our society and concerted efforts are underway to further open this route in the lower strata, family size has been examined for possible ways it might help or hinder the efforts of its members in attaining an education. An inverse relationship between family size and years of education completed has been well documented.[4] However, just as we do not know the identity of variables intervening between status inconsistency and mobility, so also do we not know the variables intervening between family size and mobility.

---

[3] Beverly Duncan, "Education and Social Background," *American Journ. of Sociol*., 73 (March, 1967), pp. 363-372. The size of the family of origin, presence of parents, and education and occupation of family head are "independent" variables. A study representative of the family of procreation and mobility relationship is Charles F. Westoff, Robert G. Potter, Jr. and Phillip C. Sagi, *The Third Child* (Princeton, N.J.: Princeton University Press, 1963).

[4] See, for example, Richard A. Rehberg and David L. Westby, "Parental Encouragement, Occupation, Education and Family Size: Artifactual or Independent Determinants of Adolescent Educational Expections," *Social Forces*, 45, 3 (March, 1967), pp. 362-374. Family size is shown to be independently related to education expected. Parental encouragement is offered as an intervening variable; Lipset and Bendix, *op. cit*.; F. M. Martin, "An Inquiry into Parents' Preferences in Secondary Education," in David V. Glass (ed.), *Social Mobility in Britain* (London: Routledge, Kegan Paul, 1954), pp. 160-174.

Family size, treated as a research variable, may give an incomplete impression of the effects of family structure on various types of behavior. Size is not the only structural characteristic of a group. Yet size is the only variable included in most research designs.[5] Age and sex structure tend to be ignored. The size of a family could interact with the age and sex composition to produce such effects as the amount of education family members receive.

With the leveling off of the once sharp differential birth rate between the upper and lower classes, the family size concept loses some of its relevance. Of increasing importance, however, are such distinctions as the length of time after marriage to the birth of the first child and the number of years between first and last child. Child-spacing is currently linked more strongly with mobility than is size of family.[6]

---

[5] A notable exception is research by J. Milton Yinger, Kiyoshi Ikeda and Frank Laycock, "Treating Matching as a Variable in a Sociological Experiment," American Sociological Review, 32, 5 (October, 1967), pp. 801-812. Sibling pattern was one variable students were matched on in an attempt to assess the influence of a summer program for culturally deprived children.

[6] Ronald Freedman and Lolagene Coombs, "Child-spacing and Family Economic Position," American Sociological Review, 31, 5 (October, 1966), pp. 631-648. Focus is on the mobility of the family head. The relationship between childspacing and mobility of children is a neglected aspect of fertility research.

Family size convergence[7] argues for the refinement of the family size concept into its meaningful structural components. It would be of interest to know if the size of a sibship interacts with the age intervals between siblings, for example, in determining such behavior as educational achievements. Certainly there is need to know more about the relationship between family size and education than the bare fact of its inverse variance.

The theoretical importance of sibship structure is directly mentioned here and there in the literature.[8] It is thought that socialization experiences and life chances may characteristically vary by position in the sibship.[9]

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[7] By "size convergence" is meant the tendency for families in all social classes to approximate one standard size.

[8] *Cf*. Bernard C. Rosen, "Family Structure and Achievement Motivation," *American Sociological Review*, 26 (August, 1961), pp. 574-585; Lawrence K. Hong, "Ordinal Position, Family Size and Anomie: Some Empirical and Theoretical Considerations," *Research Reports in the Social Sciences*, University of Notre Dame (Spring, 1967), pp. 61-70; Fred L. Strodtbeck, "The Family as a Three Person Group," *American Sociological Review*, 19 (1954), pp. 23-29; Kenneth Kammeyer, "Birth Order and the Feminine Sex Role Among College Women," *American Sociological Review*, 31, 4 (August, 1966), pp. 508-515.

[9] *Cf*. Andrew Henry, "Sibling Structure and Perception of the Disciplinary Roles of Parents," *Sociometry*, 20 (March, 1957), pp. 67-74; Alfred B. Heilbrun, Jr. and Donald K. Fromme, "Parental Identification of Late Adolescents and Level of Adjustment: The Importance of Parent-Model Attributes, ordinal Position, and Sex of Child," *J. of Genetic Psychology*, 107 (1965), pp. 49-59; for a critical review of the literature see Donald P. Irish, "Sibling Interaction: A Neglected Aspect in Family Life Research," *Social Forces*, 3 (March, 1964), pp. 286-288.

Directional notions exist, but they tend to be founded on common sense insights rather than on empirical data. Nevertheless the relevance of sibship structure tends to be tacitly accepted. In a recent methodological paper by Yinger, _et al_., for example, attention was given to the problem of matching students from lower class origins in order to test the effectiveness of a compensatory education program. Of the eighteen variables selected for matching,[10] previous research readily justifies the inclusion of seventeen. Research support for the matching of students by sibling pattern, the eighteenth variable, is not so easily found as that which legitimates matching by race or intelligence, for example. This is not an attempt to discredit the need for matching by sibling pattern. However, it would seem that in the light of such thin research existing in this area, the wisdom in matching by sibling pattern is based on more or less a "faith assumption."

In addition to family structure, research attempting to uncover factors associated with the educational horizons of working class youth, has examined the influence of reference groups and significant others.[11] Findings, however, are inconclusive as to what respective weights should be accorded parents, teachers, and peers. Ellis and Lane point out that encouragement from sources outside the family is often crucial to the college careers of lower class students. Their students cited a teacher as the most important influence on their going to college significantly more often than children in higher social classes, 33% as opposed to 4%.[12] Although the importance of teacher influence should not be overlooked, there is general consensus that the "impetus for mobility has its roots in the nuclear family."[13] Researchers have attempted to discern the role played by parents--both separately and individually. Kahl[14] and Bordua[15] seem to be representative of the minority position that the father, usually dissatisfied with his own accomplishments, exerts the primary push. Krauss[16] and others[17] think the emphasis on the father's role in the mobility process may be misplaced. Their data favor the roles of mother and peers. A very strong case for peer influence is made by Alexander and Campbell.[18]

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[10] Yinger, _et al._, Students were matched on the following variables: race, age, sex, city of residence, school, father's status in home, occupation, and education, mother's status in home, level of occupational skill, occupation and education, sibling patterns, intelligence, achievement test scores, grades, religion and religious emphasis in home.

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[11] See, for example, James S. Coleman, et al., "Equality of Educational Opportunity" (Washington, D.C.: Government Printing Office, 1966); and by the same author, "Social Climates in High Schools" (Washington, D.C.: U.S. Dept. of Health, Education, and Welfare, Office of Education); Cooperative Research Monographs, 4 (1961); The Adolescent Society: The Social Life of the Teenager and Its Impact on Education (Glencoe, Illinois: Free Press, 1961).

[12] Robert A. Ellis and W. Clayton Lane, "Structural Supports for Upward Mobility," American Sociological Review, 28, 5 (October, 1963), pp. 743-756.

[13] Ibid., p. 755.

[14] J. A. Kahl, "Educational and Occupational Aspirations of 'Common Man' Boys," Harvard Educational Review, 23 (1953), pp. 186-203.

[15] David J. Bordua, "Educational Aspirations and Parental Stress on College," Social Forces, 38 (March, 1960), pp. 262-269.

McClelland speaks of achievement in terms of motivational needs. He outlines parent-child relationships most conducive to the development of achievement incentives. Warmth, or the absence of rejection, gives the child a sense of confidence and self worth. Standards of excellence, or demands to achieve, are the opposite of indulgence, and cause the child to "strain toward attainment." Low authoritarianism, particularly on the part of the father, permits the child maximum opportunity for self-initiative and expression.[19] Such conclusions are common. Bowerman and Elder, for example, state: "High scholastic performance and goals among high school boys were most frequent when father was seen as democratic in parent child relations." Furthermore, "an adolescent's motivation and college plans are influenced more by the structure of his relations with his mother and father than by the balance of power between his parents."[20]

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[16] Krauss, op. cit.

[17] See, for example, Richard L. Simpson, "Parental Influence, Anticipatory Socialization, and Social Mobility," American Sociological Review, 27 (August, 1962), pp. 519-522.

[18] C. Norman Alexander and Ernest Q. Campbell, "Peer Influences on Adolescent Educational Aspirations and Attainments," American Sociological Review, 29, 4 (August, 1964), pp. 568-575. Sociometric techniques reveal peer influence to be strongest in instances where friendship choice is reciprocated.

[19] David C. McClelland, The Achieving Society (New York: Van Nostrand, 1961), Ch. 9.

In comparison to the considerable and significant research assessing the influence of parents and others outside the nuclear family on the educational goals and aspirations of adolescents, little attention has been paid sibling influence. A study by Krauss[21] stands out as an interesting exception. In a population of students with older siblings (N=126), younger siblings in the working class (53%), are more likely to attend college if their older sibling is in college than if their older sibling has not gone to college (26%). The relationship in the middle class is in the same direction, but less striking (76% vs. 61%). The data indicate that for working class youth, sibling influence may be very relevant, indeed. It should be emphasized that the older sibling's increasing the likelihood of the younger's college attendance occurs in a population of limited financial means. The significance of this finding takes on even greater magnitude when it is realized that Krauss' data are presented without controlling on sex, intelligence, motivation, parental encouragement, family size or any other factors known to be relevant in the relationship. Sibling influence looms worthy of additional investigation.

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[20] Charles E. Bowerman and Glen H. Elder, Jr., "Variations in Adolescent Perception of Family Power Structure," American Sociological Review, 29, 4, p. 567.

[21] Krauss, op. cit.

In Krauss' study there is the suggestion that when mobility occurs in the lower strata, it is likely to occur in pairs if not actually sweeping across the entire sibship. Whatever the initial stimulus may result from--status inconsistency of parents, child rearing practices favoring independence, direct parental encouragement, or high student intelligence and motivation,[22] there is an indication that if one sibling is affected, others are likely to be also. When the younger sibling replicates the older's behavior, there is reason to suspect that the older sibling's educational attainment was not a random occurrence, but concretely related to common experiences shared with his brother or sister. Further it would suggest that some working class families tend to be seed beds of mobility while others are totally infertile.

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[22] For date on the relationship between low socioeconomic status, intelligence, motivation and educational aspirations, see William H. Sewell and Vimal P. Shah, "Socioeconomic Status, Intelligence, and Attainment of Higher Education," Sociology of Education, 40 (Winter, 1967), pp. 1-32.

If higher educational attainment on the part of working class youth is influenced by an older sibling's successful performance, it would be of interest to examine the type of sibship structure in which this relationship tends to be most strongly evidenced. That is to say what effect does age interval between siblings, ordinal position, and sex have on the relationship between the achievement of the older and subsequent achievement of the younger? In what types of sibship structures would Krauss' findings be most strongly replicated and with respect to what behavior in addition to achievement?

Perhaps Krauss' findings would not tend to be found in other populations. Since achievement orientation is not the norm in the lower classes in the sense that it is in the upper classes,[23] common sense predictions might tend to limit high achievement "one to a family." There is a body of research which indicates that achievement is closely associated with being the "first born" in the sibship.[24]

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[23] See, for example, Richard A. Cloward and James A. Jones, "Social Class: Educational Attitudes and Participation," in Education in Depressed Areas, A. Harry Passow, (ed.) (New York: Columbia University: Teachers College Press, 1963), pp. 190-216.

[24] For a comprehensive review of this literature see William D. Altus, "Birth Order and Its Sequelae," 151, Science (January, 1966), pp. 44-49. Also see Jonathan R. Warren "Birth Order and Social Behavior," Psychological Bulletin, 65 (January, 1966), pp. 38-49; Kenneth Kammeyer, "Birth Order as a Research Variable," Social Forces, 46, 1 (September, 1967), pp. 71-80; Edward E. Sampson, "The Study of Ordinal Position: Antecedents and Outcomes," in

A disproportionate number of college students, for example, are first born siblings.[25] This finding tends to hold up regardless of student's social class or family size.

The imitative behavior of siblings with respect to college plans noted by Krauss would also not be predicted on the basis of extensive observational research conducted by Bossard and Boll related to the nature of role specialization and differentiation in the sibship. Bossard and Boll[26] posit a limited number of role types available for siblings and a tendency for the older siblings to preempt the more socially desirable roles--student, leader,

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Progress in Experimental Personality Research, Vol. II (ed.) Brendan A. Maher (New York: Academic Press, 1965), pp. 175-228.

[25] Stanley Schachter, "Birth Order, Eminence, and Higher Education," American Sociological Review, 28 (October, 1963), pp. 757-768; Sidney Cobb and John French, "Birth Order among Medical Students," Journal of the American Medical Assoc., 195, 4 (January, 1966); Leroy A. Stone, "Birth Order and Curricular Choice," Vocational Guidance Quarterly, 11, 3 (Spring, 1963), pp. 209-211; P. C. Capra and J. E. Dittes, "Birth Order as a Selective Factor Among Volunteer Subjects," Journal of Abnormal and Social Psychology, 64, 203 (1962), pp. 301-305.

[26] James H. Bossard and Eleanor S. Boll, The Sociology of Child Development (New York: Harper, 1960), Third Edition, Chapter 5, pp. 89-113, "Interaction between Siblings"; also by the same authors, "Personality Types in the Large Family," Child Development, 26 (March, 1955), pp. 71-79; "Adjustment of Siblings in Large Families," American Journal of Psychiatry, 112 (1956), pp. 889-892. The data was in the main comprised of 879 children living in 100 large families having six or more siblings. Over a period of years, questionnaires, non-directive interviews and family-life documents were employed in data collection.

popular, etc. Depending upon the size of the family, the younger siblings may be forced to act out pathological roles--problem child, practical joker, etc. These researchers have content analyzed sibling roles and believe there to be eight distinct types which will tend to distinguish siblings one from another.

If the family is differentiated by role specialization, to what extent are siblings in agreement with respect to self attitudes and behaviors related to school performance? Are Bossard and Boll to be interpreted to mean that one sibling will occupy the student role to the exclusion of all others? If an empirical investigation bears this out, it would seem that socialization is less than a uniform experience even within the same family. If, on the other hand, siblings tend to be in agreement, the identification of an older sibling achiever, for example, may tend to increase the probable identification of a younger sibling with the same orientation. Perhaps it would be of value to construct a typology relating sibship structure to sibling agreement with respect to selected self attributes, attitudes and behaviors.

## Summary

In short the central problem of this research can be stated as follows. To date, educational attainment and related attitudes and behavior have been investigated primarily with the individual as the unit of analysis.

Correlates of achievement have been examined--intelligence, motivation, parental encouragement, socialization experiences, the size of the family of origin, its social class and status integration. Concern in this study is directed at detecting sibship structural correlates of behavior and assessing the extent of agreement between sibling pairs with respect to education expected, achievement and selected other attitudes and behavior.

It is suggested that there is a need to refine the research variable "family size" taking into account age intervals between siblings, birth order, and sex. The relationship between family size and behavior has been studied. What is the relationship between sibship structure and sibling behavior--both individually and paired?

Possible significance of this research lies in being able to add a new dimension to the list of variables relevant in determining the educational aspirations of children. The new variables to be examined are aspects of sibship structure--sex, birth order, and age interval between siblings.

On a higher level of significance, the problem to be studied has implications for the study of social change. Duncan[27] has presented data revealing the relationship between family size and educational attainment to be invariant over a thirty year time period in spite of dramatic changes in the opportunity structure. "As an illustration, no lessening in the effect of family background on schooling is observed for the cohorts that include recipients of the G. I. Bill . . . data do not suggest a lesser family effect on attainment. . . ."[28]

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[27] Duncan, op. cit.

Such findings as Duncan's tend to give a pessimistic coloring to efforts directed at "equalizing the opportunity structure." If the family variable can be refined, we may increase our knowledge of why this invariant relationship between family size and educational attainment has persisted. And, if so inclined, we may be more fully equipped in our efforts to alter it.

## B. Related Literature

Parsons' instrumental-expressive role orientation concept has provided a theoretical framework for the study of family roles and socialization of children.[29] Heilbrun and Fromme[30] have compiled the results of studies using Parsons' schema concerned with late adolescents and achievement. Five studies show college achievement to be related to high instrumental-low expressive behavior. First born students of both sexes have greater identification with their mother and higher expressive orientation than do later born students. The authors conclude that first born students should tend to be under-represented in high achievement groups. The literature, as a whole, does not support this conclusion.

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[28] Ibid., p. 372.

[29] Talcott Parsons and Robert Bales, Family Socialization and Interaction Process (Glencoe, Illinois: Free Press, 1955).

[30] Heilbrun, Jr. and Fromme, op. cit.

West[31] reports in a study of 813 scientists in six research organizations that the frequency of the first birth position is enhanced and the second, third, and fourth depressed relative to chance expectation. The relationship is curvilinear, however, because the fifth and sixth birth positions also occur with frequencies of greater than chance expectancy. Comparison of the sample distribution with number of siblings in the general population by sibship size demonstrates a rapid decrease in the ratio of observed to expected frequencies with increasing size of sibship.

On the basis of the questionnaire data designed to tap early socialization experiences in the family of origin, West accepts the "isolation" hypothesis of Faris[32] with the explanation that "interaction among siblings inhibits the development of a scientific personality." He adds that "the effectiveness of interaction between siblings is likely to depend on differences in their ages."[33] Given the limitations of the study, West was not able to take "differences in their ages" into account. The strengths of West's study lie in his comparison of his sample with that found in the general population and his speculation as to the effects of variables intervening between birth order and achievement.[34]

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[31] S. Steward West, "Sibling Configuration of Scientists," American Journal of Sociology, 66, 3 (November, 1960), pp. 268-274.

[32] R. E. L. Faris, "Sociological Causes of Genius," American Sociological Review, 5 (1940), pp. 689-99.

The tendency for first borns to thrive in relative isolation is supported by the sociometric choices reported by Schachter[35] in a sample of 599 University of Minnesota students. First born students scored 3.94 and 4.23 on a popularity index; later born students scored significantly higher with ratings of 5.11 and 4.73 ( p. $<$ .01). A possible bias may have been introduced into the sample as Schachter's subjects were all members of fraternities and sororities. Such social organizations draw their members disproportionately from the upper social classes and tend not to be representative of the college population as a whole. A sample of psychology students reveals that "at every family size there is a marked over-representation of first borns. The chi square for this distribution is significant at better than the .001 level."[36] In a public high school population, however, the distribution is what would be expected by chance.

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[33] West, op. cit., p. 274.

[34] Earlier studies show over-representation of first born siblings but fail to compare the birth order distribution in their sample with that of the larger population. Sir Francis Galton, English Men of Science: Their Nature and Nurture (London: MacMillan, 1874); J. M. Cattell and D. K. Brimhall, American Men of Science, 3rd ed. (Garrison New York: Science Press, 1921); H. Ellis, A Study of British Genius (Boston: Houghton Mifflin Co., 1926); Anne Roe, "A Psychological Study of Eminent Psychologists and Anthropologists, and a Comparison with Biological and Physical Scientists," Psychological Monographs 67, 2, 1953; S. S. Visher, Scientists Starred 1903-1943 in American Men of Science" (Baltimore: Johns Hopkins Press, 1947), p. 537; Irving D. Harris, The Promised Seed, A Comparative Study of First and Later Sons (New York: Free Press, 1964). An historical analysis of previous studies. Eminence is explained by a hypothesized "cognitive stretch" required by parents of their first born offspring.

[35] Stanley Schachter, "Birth Order and Sociometric Choice," Journal of Abnormal and Social Psychology, 68 (1964), pp. 453-456.

Greater availability of family funds for the education of the first born is often offered as an explanation for the above chance frequencies of first borns in high achievement groups. Schachter does not have SES data, but notes that until recent years family size has been inversely related to socio-economic status. Thus by holding family size constant, Schachter tentatively rules out the economic argument. Bayer[37] presents data supporting Schachter's decision.

Bayer's sample includes 8,124 doctorate recipients in 1962 who supplied complete birth order information to a questionnaire administered by the National Academy of Sciences. Since no income data were collected, "father's education is a crude . . . measure of the socioeconomic position of the doctorate's family of origin."[38] First borns were overrepresented in all fields of study. In each sibship size, from two to five, a greater number of doctorates are first born than is expected by *a priori* distributions. As father's education increases, the frequency of first born children also increases. When fathers have less than a ninth grade education, for example, later borns number 660 as compared with 562 first borns.

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[36] Stanley Schachter, "Birth Order, Eminence, and Higher Education," American Sociological Review, 28,5 (October, 1963), p. 761.

[37] Alan E. Bayer, "Birth Order and Attainment of the Doctorate," American Journal of Sociology, 73 (March, 1967), pp. 540-550.

Since Bayer's data do not confirm his economic hypothesis, he turns next to a consideration of intelligence. Do later borns have higher IQ's which might facilitate their high achievement in light of an hypothesized lack of funds? This is not the case. Mean IQ for those whose father had at least a bachelor's degree is 67.5 as opposed to 62.8 for those whose father's education was less than ninth grade. Furthermore those who are not first born have older brothers at expected frequencies which implies that limited economic resources are not channeled consistently to an older male.

Bayer is aware that other economic hypotheses need to be examined. "What, for example, are the economic effects on achievement of variations in child-spacing?"

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[38] *Ibid*., p. 544.

He urges:

> an advance beyond the simply descriptive cross-sectional studies of birth order that heretofore have been the mode. . . . Sample techniques which employ *a large number of cases of actual siblings* . . . have been largely overlooked.[39]

If the economic argument were to be more solidly rejected, socialization hypotheses or those with a definite physiological bias which purport to explain birth order effects on behavior would be strengthened. Before reviewing research which attributes birth order effects to differential socialization, let us turn briefly to physiological data.

One of the primary physiological explanations that has been posed to explain the higher ability level of the first born is the "uterine fatigue" hypothesis.[40] A primary aspect of this hypothesis is that of an assumed richer uterine environment for the earlier born. Each succeeding child is thought to receive a lesser degree of maternal nourishment.

An alternate physiological hypothesis based on such birth order related phenomena as length of labor, type of delivery, frequency of use of forceps, and variation in weight at birth would tend to favor the superior development of the later born. Length of labor, for example, tends to vary inversely with birth order. Wile and Davis[41] attempt to examine non-cultural factors which may be associated with behavior by ordinal position. The researchers took as their sample 100,828 births occurring over a three year time period in two large urban hospitals. No significant differences, for example, can be attributed to spontaneous deliveries as opposed to those in which instruments were used. Likewise behavioral development of those babies born by "natural" means did not differ from those born by Caesarean section when compared by such indices as hyperactivity and aggressiveness. Although not dismissing the relevance of physiological factors, the authors call for greater attention to be paid cultural factors.

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[39] *Ibid.*, p. 550 (emphasis added).

[40] J. Yerushalmy, "The Effect of Order of Birth and Age of Parents upon Neonatal Mortality," *American Sociological Review*, 3 (1938), pp. 868-872.

Intelligence is the behavior most presistently caught in a cross-fire between the biological and the socio-cultural schools of thought.[42] Data presented by Nichols[43] is worth perusing as it implicitly resolves the viability of the two main physiological hypotheses while explicitly offering socio-cultural interpretations. Of the 1618 finalists in the National Merit Scholarship competition in 1964, first borns in every size sibship outnumber later borns. No relationship between birth order and ability is noted in the general population. The ability level of the first born is of a greater range and variance than that of later-born. Physiological effects when operative may tend to be both facilitative and detrimental to the ability level of the first born. When these effects are operative on later born children, the results are confined to a much narrower range of behavior.

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[41] Ira S. Wile and Rose Davis. "The Relation of Birth to Behavior," Kluckhohn, Murray and Schneider, (eds.), Personality in Nature, Society and Culture (New York: Knopf, 1956).

[42] For a general discussion, see Bruce K. Eckland, "Genetics and Sociology: A Reconsideration," American Sociological Review, 32,2 (April, 1967); also Harold E. Jones, "The Environment and Mental Development," in L. Carmichael (ed.), Manual of Child Psychology (New York: Wiley, 1954); John Nisbet, "Family Environment and Intelligence," in Education, Economy, and Society, A. H. Halsey, Jean Floud, and C. Arnold Anderson (eds.) New York: Free Press, 1961), pp. 273-287.

[43] Robert C. Nichols, "Birth Order and Intelligence," National Merit Scholarship Corporation, Unpublished (June, 1964).

A pioneer study, however, contradicts Nichols. Thurstone and Jenkins[44] found that within families between actual siblings there is a consistent increase in average intelligence from first born to last, with an average increase of 18 IQ points to those born eighth or later. Among Terman's 1,000 gifted children, those children occupying intermediate positions in the sibship were also underrepresented.[45] An inventory of findings reveals that whereas intelligence may increase within families, the reverse is true, in general. "Across the population at large, later-born children have lower average IQ's. . . ."[46] The contamination of social class with family size is offered as an explanation.

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[44] Louis Thurstone and Richard L. Jenkins, Order of Birth, Parent-Age and Intelligence (Chicago: University of Chicago Press, 1931).

[45] L. M. Terman, (ed.), Genetic Studies of Genius, Vol. 1; The Mental and Physical Traits of a Thousand Gifted Children (Standford, California: Stanford U. Press, 1925).

On the other side of the coin, failure in social adjustment may be compared with outstanding success. A plethora of studies exist relating birth order to schizophrenia.[47] All share a common weakness--subjects consist of those hospitalized in large state mental hospitals. Behavior labeled schizophrenia varies over time and by examining physician and by hospital policy. Also a lower social class bias may be introduced into these samples as individuals in the lower strata tend to evidence this behavior more than those in upper strata and are more likely to be hospitalized in public institutions.[48]

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[46] Bernard Berelson and Gary A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace and World, 1964), p. 225.

[47] See, for example, N. Sundararaj and B. S. S. Rao, "Order of Birth and Schizophrenia," British J. of Psychiatry, 112 (1966), pp. 1127-1129; L. Solomon and R. Nuttall, "Sibling Order, Premorbid Adjustment and Remission in Schizophrenia," J. of Nervous and Mental Disorders, 144 (December, 1966), pp. 37-46; C. Schooler, "Birth Order and Hospitalization for Schizophrenia," J. of Abnormal and Social Psychology, 69 (1964), pp. 574-579 and "Birth Order and Schizophrenia," Archives of Genetic Psychiatry, 4 (1961), pp. 91-123; A. Farina, H. Barry, III and N. Garmezy, "Birth Order of Recovered and Non-recovered Schizophrenics," 9 (1963), Archives of Genetic Psychiatry, pp. 224-228; I. Gregory, "An Analysis of Family Data on 1,000 Patients Admitted to a Canadian Mental Hospital," Acta Genet., 9 (1959), pp. 54-96; C. M. Smith and S. McIntyre, "Family Size, Birth Rate and Ordinal Position in Psychiatry," Canadian Psychiatric Assoc. J., 8 (1963), pp. 244-248; K. L. Granville-Grossman, "Birth Order and Schizophrenia," British J. of Psychiatry, 112 (1966), pp. 1119-1126.

In a recent study Barry and Barry[49] attempted to surmount the deficiencies of earlier studies and resolve the ambiguities of their findings. These researchers believe their sample of 1009 to represent a wide range of socio-economic backgrounds. The admission policy is selective in maintaining a balance in the patient population as the psychiatric section from which the sample is drawn serves a teaching function for the University of Pittsburgh School of Medicine. Barry and Barry found the second half of the sibship to be over-represented in large families. In small families, however, first-born males were significantly more numerous than last-born. High socio-economic status appears to intensify the effect. Parental pressure is offered as an intervening variable.

Barry and Barry suggest that physiological hypotheses such as "uterine fatigue" which favor earlier birth positions over later ones can be tested by cross-cultural data.[50] Relationships in the reverse direction to those found in the U.S. are cited in Asia.[51] Arguing that physiological effects would be universal, Barry and Barry seem justified in favoring sociocultural explanations over purely physiological ones. Our understanding will be incomplete, though, until "family environment is specified much more precisely by taking into account also the sexes and age differences of the siblings."[52]

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[48] A. B. Hollingshead and F. C. Redlich, Social Class and Mental Illness: A Community Study (New York: John Wiley, 1958).

[49] Herbert Barry, III and Herbert Barry, Jr., "Birth Order, Family Size, and Schizophrenia," Archives of Genetic Psychiatry, 17 (October, 1967), pp. 435-440.

The remainder of this literature review will be devoted to studies attributing differential sibling behavior by ordinal position to qualitatively different socialization experiences in the family of origin. Perhaps inspired by the large body of findings which show that first borns are characteristically different from later borns, a hypothesis has emerged which is gaining popular acceptance. It suggests that intensive socialization of the first born is responsible for subsequent behavioral variations. Briefly the "intensive socialization" hypothesis may be stated as follows: First borns acquire unique personality characteristics as a result of intensive interaction with adults. Being the first child in the family, the first-born has a greater opportunity to interact with adults who, in turn, are likely to be attentive to his needs because of the novelty of parenthood. In other words, first borns have a greater opportunity to learn directly from adults, internalize adult values and attitudes, and use adults as their role models.[53]

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[50] The common technique for testing physiological hypotheses is the inclusion of the variable "maternal age" in the research design. See, for example, I. Gregory, "An Analysis of Familial Data on Psychiatric Patients: Parental Age, Family Size, Birth Order and Ordinal Position," British Journal of Preventive and Social Medicine, 12 (January, 1958), pp. 42-59; Alan Norton, "Incidence of Neurosis Related to Maternal Age and Birth Order," British J. of Social Medicine, 6 (1952), pp. 253-258.

[51] H. B. M. Murphy, "Culture and Mental Disorder in Singapore," in M. K. Opler (ed.), Culture and Mental Health (New York: MacMillan, 1959), pp. 291-316; W. Caudill, "Sibling Rank and Style of Life among Japanese Mental Patients," Folio Psychiatrica et Neurologica Japonica, Supp. 7 (1964).

[52] Barry and Barry, op. cit., p. 440.

In a critique of birth order research, Kammeyer endorses the "intensive socialization" hypothesis. He includes it as his major premise in his model suggested for use in future birth order studies.

> My major premise . . . is that any differences which appear between children of different ordinal positions must be the result of their different interaction-social learning expieriences . . . for the present the focus should be on the nuclear family. . . . Despite the oversimplification of this premise I think it is a firm basis for beginning a systematic analysis of the influence of birth order.[54]

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[53] For a more detailed account of the "intensive socialization" hypothesis see Robert R. Sears, "Ordinal Position in the Family as a Psychological Variable," American Sociological Review, 15 (June, 1950), pp. 398-399; John Clausen and Judith R. Williams, "Sociological Correlates of Child Behavior, " in Child Psychology, The 62nd Yearbook of the National Society for the Study of Education, Part I, (eds.) H. W. Stevenson with Jerome Kagin and Charles Spiker (Chicago: U. of Chicago Press, 1963), pp. 90-91; Jonathan R. Warren, op. cit.

[54] Kenneth Kammeyer, op. cit., p. 77.

The need for Kammeyer's mapping of birth order strategy is reflected in a potpourri of studies greatly lacking lucidity. Since Koch is the most prolific author in this area, perhaps she is the greatest offender.[55] Her subjects, 384 five year old school children, were from unbroken, native-born, white, urban, two-child families in Chicago. Data were obtained by teacher ratings, interviews, the California Behavior Inventory for Nursery School Children, Fels Child Behavior Rating Scales and Children's Apperception Test (CAT). An analysis of variance was performed for 16 subgroups. Although her findings are too numerous to catalog here, one general statement may be made. Younger siblings with a cross-sex older sibling tend to have more traits associated with the opposite sex than siblings from same-sex sibships.

Koch's research may be criticized on various grounds. Her sample includes only one child per family. Thus her use of the term "sibling" is a misnomer. Limiting her sample to two-child families introduces a definite social class bias as small families are associated with high socio-economic position. Her use of very young children suggests that many of her two-child families are yet incomplete sibships. Adolescent samples tend to avoid this problem.

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[55] See, for example, Helen Koch, "The Relation in Young Children between Characteristics of their Playmates and Certain Attributes of their Siblings," Child Development, 28 (1957), pp. 175-202; "Sissiness and Tomboyishness in Relation to Sibling Characteristics," Genetic Psychology, 88 (1956), pp. 231-244; "Some Emotional Attitudes of the Young Child in Relation to Characteristics of His Sibling," Child Development, 27 (December, 1956), pp. 394-426; "Some Personality Correlates of Sex, Sibling Position, and Sex of Siblings among Five and Six-Year-Old Children," Genetic Psychological Monographs, 52 (1955), pp. 3-50; "The Relation of 'Primary Mental Abilities' in Five and Six-Year-Olds to Sex of Child and Characteristics of His Siblings," Child Development, 25 (1954), pp. 209-223.

On the basis of Koch's research, Brim formulates hypotheses relevant to sex role learning and couches them in social learning theory:

> The structure of a social group, delineated by variables such as size, age, sex, power and prestige differences, is held to be a primary influence upon the patterns of interaction within the group, determining in major part the degree to which any two group members interact. It is held, second, that social roles are learned through interaction with others, such interaction providing one with the opportunity to practice his own role as well as to take the role of the other. On this basis, one may hypothesize that group structure, by influencing the degree of interaction between group members, would be related to the types of roles learned in the group. . . .[56]

Brim interprets Koch's data to mean that cross-sex siblings tend to assimilate traits of the opposite sex, and that this effect is most pronounced in the younger of the two siblings. He goes on to speculate about the durable consequences of this effect with respect to sibling sex and one's later role in the marital relation,[57] adult career choices, and other correlates of adult sex roles.

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[56] Orville G. Brim, "Family Structure and Sex Role Learning by Children: A Further Analysis of Helen Koch's Data," Sociometry, 21 (March, 1958), pp. 1-16. The passage quoted is Brim's introductory statement. It is presented at some length because it offers a sharp contrast to other studies, predominantly theoretical in orientation.

Elder and Bowerman[58] employ a theoretical orientation similar to Brim. Sibship size and sexual composition are independent variables thought to determine, in part, child-rearing practices of parents. Their subjects are drawn from a 40 per cent random sample of 7th grade, white Protestants from unbroken homes, living mainly in urban areas. The larger sample totals 1,261 students. They hypothesized that (1) "the probability of paternal involvement in the control and discipline of children increases as family size increases" and (2) "paternal involvement in child rearing is most frequent when all of the children in the family are boys."[59] The hypotheses were accepted strongly contingent upon the sex and social class of the child.

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[57] This thesis is developed at considerable length by Walter Toman. See W. Toman, "Family Constellation as a Character and Marriage Determinant," International J. of Psychoanalysis, 40 (1959), pp. 316-319; Family Constellation (New York: Springer, 1961).

[58] Glen Elder and Charles Bowerman, "Family Structure and Child Rearing Patterns: The Effect of Family Size and Sex Composition," American Sociological Review, 28 (December, 1963), pp. 891-905. The researchers lament the fact that due to the limitations of the study, "birth order and the spacing of children are two important structural properties of the family not examined." (p. 892) See also, G. Elder, "Structural Variations in the Child Rearing Relationship," Sociometry, 25 (September, 1962, pp. 252-256.

[59] Ibid., p. 893.

Sibling adjustment has also been examined within a structural frame of reference. Findings consistently show that adolescents in small families tend to be more "well adjusted" and have better relationships with parents than children in large families. Nye's samples of adolescents from grades 8 and 11 of fifteen public schools in Michigan, N=1,472, were administered a pre-coded questionnaire designed to tap various dimensions of adjustment. Only children in both high and low quartiles evidence higher adolescent-parent adjustment than siblings in small, intermediate, or large families. When socio-economic status is held constant, differences significant at the 1% level remain significant. Better adjustment in small families is attributed to family planning, more time parents have to devote to each individual child, and the less competition children represent with respect to the aquistion of material possessions.[60]

Bossard and Boll have discussed the contrasts between small and large families. They speak of different types of personality being fostered by each type of family structure, but are very careful not to make a value judgment as to what size family is responsible for the "best adjustment." Their work tends to be impressionistic rather than empirical.[61]

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[60] Ivan Nye, "Adolescent-Parent Adjustment, Age, Sex, Sibling Number, Broken Homes, and Employed Mothers as Variables," Marriage and Family Living, 14 (November, 1952), pp. 327-332; see also Glenn R. Hawkes, Lee Burchinal and Bruce Gardiner, "Size of Family and Adjustment of Children," Marriage and Family Living, 20 (February, 1958), pp. 55-58. Similar findings are reported. A social class control on the sample of 256 fifth grade students was not attempted.

An important study by Morris Rosenberg[62] treats adolescent adjustment in terms of their self esteem. The major independent variables of this study of 5,000 adolescents from ten New York State junior and senior high schools are social-structural; social class, family size, sex, birth order, religion race, presence or absence of a parent, and the like. Rosenberg uses these group membership variables to test for self-esteem. Sample findings include the following: (1) Adolescents from higher social classes have higher self-esteem than do adolescents from lower classes. (2) The social class differences do not hold for girls, whose self-esteem is generally lower than that of boys. (3) High self-esteem is related to being an only or oldest child, as well as to being a younger boy in a family in which older siblings are mostly girls. (4) Male self-esteem is relatively impervious to such experiences as poor scholastic or social performance.

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[61] See, for example, James Bossard and Eleanor Boll, op. cit., pp. 889-892; also by the same authors, The Large Family System (Philadelphia: U. of Philadelphia Press, 1956).

[62] Morris Rosenberg, Society and the Adolescent Self-Image (Princeton, N. J.: Princeton University Press, 1965; see also "Parental Interest and Children's Self Conceptions," Sociometry, 26 (March, 1963), pp. 35-49.

In addition to self-esteem, conservatism and dependency are two personality variables thought to be linked with birth order. Kammeyer[63] drew a random sample of 232 unmarried female students at a state university. Questionnaire data were collected to measure feminine role behavior and beliefs about female personality traits. First born girls were found to be more traditional than later born girls. Their general conservatism was reflected in their high agreement with parents, their strong religious beliefs and their willingness to marry before completing their education. The strength of this study may be said to be contained in the speculations about social change stated in the concluding paragraphs. If first born children are conservators of the traditional culture, "the rate of social change in a society may be influenced by the demographic factor of family size."[64] Rossi shares this line of reasoning.

Rossi's sample consists of 347 urban middle class mothers in Chicago. Semi-structured interviews were conducted in an attempt to obtain information on child-naming patterns as an index of kinship solidarity. The discovery that first born are more often named after kin in every religious and ethnic group than later born children led her to speculate about the personalities of first and later born children. A first born male, for example, is expected to be goal oriented with respect to educational and occupational achievement. The female's expected role is "integrative and adaptive, turned inward to the world of family and kin. . . ."[65] The interpretative suggestions are somewhat substantiated by the data. First-borns exceed last-borns in their mean number of years completed and in their mean SES score. High achieving first born sons were more likely than low achieving first born sons to be named after relatives, 41% as opposed to 13%.[66]

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[63] Kenneth Kammeyer, op. cit., pp. 508-515.

[64] Ibid., p. 514. This relationship was previously hypothesized by Brian Sutton-Smith, John Roberts and B. G. Rosenberg, "Sibling Associations and Role Involvement," Merrill -Palmer Quarterly, 10 (January, 1964), pp. 25-38. It is their thesis that it may be societally functional for the first born to be "more or less committed to the preservation of traditional social roles," (p. 32).

Schachter's seminal research[67] in the area of birth order and psychological characteristics and behavior was responsible for a rash of small group studies in the early 1960's[68] designed to replicate his findings and refine his variables. In brief, Schachter found that first born students at the University of Minnesota when confronted with typical small group tasks in an interaction lab tended to seek company in times of experimentally induced anxiety more frequently than later born students. He posited greater "affiliative" needs on the part of the first born to explain the relationship between experiencing anxiety and wishing to be with others. No attempt was made to measure this intervening variable.

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[65] Alice S. Rossi, "Naming Children in Middle-Class Families," American Sociological Review, 30 (August, 1965), p. 507.

[66] A mother who is kin oriented may tend to be first born in her sibship. Allen reports data suggesting that mothers of successful clergymen tend to be first born more often than mothers with more unsuccessful sons. Phillip J. Allen, "Childhood Backgrounds of Success in a Profession," American Sociological Review, 20 (1955), pp. 186-190.

[67] Stanley Schachter, The Psychology of Affiliation (Stanford, Calif.: Stanford U. Press, 1959). Perhaps an additional shortcoming of this research is the combination of only children with first born for analysis purposes. This grouping does not allow for possible effects of later born children on the development of the first born.

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[68] See, for example, L. S. Wrightsman, "Effects of Waiting with Others on Changes in Level of Felt Anxiety," J. of Abnormal and Social Psychology, 61 (1960), pp. 216-222. First born subjects were found to be more susceptible to social influence; this same finding was reported by F. R. Staples and R. H. Walters, "Anxiety, Birth Order, and Susceptibility to Social Influence," J. of Abnormal and Social Psychology, 62 (1961), pp. 716-719; see also S. W. Becker and J. Carroll, "Ordinal Position and Conformity," J. of Abnormal and Social Psychology, 65 (1962), pp. 129-131; Barbara H. Long and Robert C. Ziller and Edmund H. Henderson, "A Study of Individualism: Some Demographic and Psychological Correlates," Social Forces, 45, 1 (September, 1966), Questionnaire data, N=77, reveal first born females to be more affiliative than later born females; E. E. Sampson, "Birth Order, Need Achievement and Conformity," J. of Abnormal and Social Psychology, 64 (February, 1962), pp. 155-159. First born females resist influence more than later born females or first born males. Need achievement is higher in the first born than in other birth ranks; A. John Arrowood and Donald M. Amoroso, "Social Comparison and Ordinal Position," J. of Personality and Social Psychology, 2, 1 (1965), pp. 101-104. In a laboratory experiment, sociometric and self report data reveal first born subjects to be more susceptible to social influence.

Studies derived from the parent study by Schachter share similar weaknesses which are perhaps inherent in small group research. That is to say the sample sizes are too small and non-representative to permit generalization beyond the experimental group and the interaction which takes place among subjects reflects the contrived nature of the group itself.[69] Nevertheless this body of work does suggest interesting hypotheses for further research.[70]

In conclusion it should be noted that the literature does not include sibling samples composed of actual siblings which allow comparisons within the same family.[71]

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[69] An interesting methodological point is raised. If first borns have stronger affiliative needs, there may be a consistent tendency for first borns to volunteer for laboratory experiments involving other subjects more frequently than later born individuals. Thus small group studies may be biased by an overrepresentation of first born subjects. For an explication of this argument and supporting data see, P. C. Capra and J. E. Dittes, op. cit.; J. H. Weiss, A. Wolf and R. G. Wiltsey, "Birth Order, Recruitment Conditions, and Volunteering Preferences," American Psychologist, 18 (1963), pp. 396-399.

[70] Cf. Schachter, op. cit., p. 455. The tendency for first born students to choose popular students as "ideal" roommates and be affected by the opinions of others lead Schachter to hypothesize that first borns "may well be involved in more unhappy marriages, more divorces, and more broken friendships than later borns," p. 455.

[71] The exception is research by S. M. Schoonover, "The Relationship of Intelligence and Achievement to Birth Order, Sex of Sibling, and Age Interval," Journ. of Educational Psychology, 50, 4 (1959), pp. 143-146. An average of 48 sibling pairs were included for each achievement measure. The elementary school children were all of middle class or higher socio-economic status. Longitudinal comparisons of school record data were made. No significant differences between siblings were found. The findings

This absence has been regretted by researchers[72] and Henry,[73] for example, has noted it as a limitation to his own research.

The sibling dimension of family life has been neglected in comparison to the voluminous studies focusing on parent-child interaction.[74] A notable exception is research by Cumming and Schneider. They found that "some persons, particularly during certain phases of the life cycle, find sibling ties to be more meaningful than their

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could be attributed to the homogeneity of the population and small standard deviations with respect to the achievement distributions.

[72] _Cf_. Bayer, _op. cit_., p. 550.

[73] Andrew Henry, _op. cit_. "The fact that only a very small proportion of the variance in perception of the disciplinary structure is accounted for by birth order may be in part a function of the fact that we have been comparing youngest and oldest children from _different families_. Birth order should account for a very substantial part of the within-family variance when siblings in the _same family_ are compared with each other," p. 72 (emphasis added).

[74] For a statement of the problem, see Donald P. Irish, _op. cit_. Some of the factors impeding research are: (1) Parental responsibility: Social problems such as juvenile delinquency demand attention be paid to the adult or parent-child dimension; (2) Freudian thought: Early childhood socialization is stressed and sibling influence is spoken of in a negative sense, i.e., rivalry; (3) Occupational pressures: Family sociologists are encouraged to study marital adjustment, dating, etc.; (4) Practical problems: Sibling age distribution would make longitudinal techniques ideal, but not practical.

spouse-bonds."[75] Although these researchers present this finding from the viewpoint of kinship solidarity, it also has relevance for the reference group approach to predicting behavior.[76]

Not only have researchers bemoaned the absence of studies involving actual siblings and have noted the theoretical significance such studies would have, but they also have been cognizant of the attendant methodological difficulties which explain, in part, the dearth of such studies. Bayer has been especially aware of practical problems.

> A comprehensive treatment of the birth-order variable, with concomitant factors controlled, requires an extremely large sample size. The permutations of sex and spacing, in combination with the large number of possible birth order positions and family sizes, yield an extremely large number of categories. . . .[77]

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[75] Elaine Cumming and David M. Schneider, "Sibling Solidarity: A Property of American Kinship," American Anthropologist, 63 (June, 1961), pp. 498-507. For research on adult sibling interaction see, Marvin B. Sussman, "The Isolated Nuclear Family: Fact or Fiction," Social Problems, 6 (Spring, 1959), pp. 333-340. Bert N. Adams, Kinship in an Urban Setting (Chicago: Markham, 1968).

[76] An earlier study suggests that strongest affective attitudes develop among children of the same sex and sociometric choices tend to be directed to the youngest. See Paulette Cahn, "Sociometric Experiments Applied to the Family Group," Sociometry, 15 (1952), pp. 306-310.

[77] Bayer, op. cit., p. 543. Thirty years ago "comprehensive treatment" was attempted, but without controls. Krout with a sample of 1,093 siblings living with two parents in 432 families delineated 26 ordinal positions--13 for each sex. He derived a number of statistical relationships between personality traits and ordinal position. See M. H. Krout, "Typical Behavior Patterns in Twenty-Six Ordinal Positions," J. of Genetic Psychology, 55 (1939), pp. 3-30.

Definitional problems also exist aggravated by the increasing prevalence of remarriage which results in step and half siblings being introduced into the family of origin. Classification decisions must also be made with respect to multiple births and siblings who have been adopted or have died. Krinsky[78] defined birth order so as to take into separate account chronological and psychological birth order positions. Her conclusions were unaffected by this distinction.

Locating a sibling population may also present difficulties. Sibling groups are not:

> as physically accessible or as socially amenable to study as they are as separate individuals enrolled in public school or college classrooms or as members of gangs or other age and sex-graded peer groups. Moreover, . . . siblings become separated at earlier ages and in greater numbers than ever before.[79]

Designing data collection instruments can be problematic if siblings are greatly separated by age and maturation and social learning differences have to be taken into account. Longitudinal techniques may overcome some of these difficulties.[80]

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[78] Susan Gans Krinsky, "The Relationship among Birth Order, Dimensions of Independence-Dependence and Choice of a Scientific Career," in William W. Cooley, Career Development of Scientists: An Overlapping Longitudinal Study (Cambridge, Mass.: Harvard U. Grad. School of Education, 1963), pp. 157-170.

[79] Irish, op. cit., p. 287.

[80] Ibid., p. 287.

Finally researchers may use terms like "tricky" with respect to the birth order variable. Demographic artifacts have to be examined. For example, if first borns out number others in any population, then the fact that first borns out rank others among eminent men is not interesting. Schachter comments:

> I have published these data almost reluctantly and only after convincing myself that the most obvious methodological and demographic artifacts cannot account for these relationships . . . some of these can be remarkably tricky.[81]

In brief, studies involving sibship variables tend to be tangential to the primary purpose of the research.[82] Thus they tend to be concerned with description rather than hypothesis testing.[83] Intervening variables, although alluded to, are seldom measured. As a whole, the research is atheoretical, and the populations are homogenous, usually college students. Many studies are retrospective.[84] That is to say they start with a population of high achievers, for example, and attempt to delineate variables relevant to success. It is more desirable to compare achievers and non-achievers with respect to variables hypothesized to be related to eminence. Finally, no survey methods gathering attitudinal data from actual siblings have been attempted. Cross-sectional designs have been used collecting largely secondary data from children in different families. When sibling data does exist, it tends to be in the form of one sibling reporting on the behavior of another.

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[81] Schachter, op. cit., p. 766 (1963b).

[82] "In no other area of research have I so often had the impression that the researchers just happened to discover the significance of their major variable while primarily interested in something else. My own experience certainly followed this pattern," p. 73, Kenneth Kammeyer, op. cit; Schachter makes a similar confession. "If . . . the reader has detected . . . astonishment in this recital of the facts of ordinal position, he has been correct for we have been . . . truly astonished by the . . . serendipitous findings of laboratory experiments," op. cit., p. 78.

[83] Bayer, op. cit., p. 543.

[84] See, for example, West, op. cit.

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[85] See, for example, Krauss, op. cit.

## II. OBJECTIVES

### A. Model

The model, Figure 1, on the following page represents the major factors to be investigated in this study. According to the model, siblings from different social class backgrounds and family structures will have characteristic identities (the "causal" variables) which will be related to their intentions to continue their education beyond the high school diploma (the "effect" variable). This antecedent--consequent relationship between family structure and expected education will be modified and conditioned by such factors as student role performance, perceptions of the expectations of significant others, and actual discussion of one's future plans (the "control" variables).

### B. Hypotheses

The construction of the model draws upon theory in such diverse areas as educational sociology, social stratification, family dynamics, and social psychology. An attempt has been made to formulate the research hypotheses in line with this theory.

FIGURE 1. STUDY MODEL*

| I. PRECONDITIONS | II. INDEPENDENT VARIABLES | III. INTERVENING VARIABLES | IV. DEPENDENT VARIABLE |
|---|---|---|---|
| 1. Social Class | 1. Family Structure | 1. Student Role Performance | 1. College Expectation |
|  | (a) age interval between siblings | (a) intelligence |  |
| 2. Ethnicity | (b) birth order | (b) achievement |  |
|  | (c) sexual composition | (c) school values |  |
|  | (d) size | (d) success attitude |  |
|  | 2. Sibling Identity | 2. Social Perceptions |  |
|  | (a) self attitude | (a) social class estimate |  |
|  | (b) significant other attitudes | (b) parental pressure |  |
|  |  | (c) friends' plans |  |
|  |  | 3. Discussion of Future Plans |  |

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*Schema specifying hypothetical inter-relationships of selected preconditional, independent, intervening, and dependent variables determining the relationship between family structure and college expectations of siblings.

### 1. Social Class

The larger society is achievement oriented as well as stratified. There are, therefore, differential assessments made concerning achievement and opportunities to achieve. Being denied "room at the top" and experiencing blocked mobility may result in substantial numbers of the lower classes being thwarted in regard to the pursuit and attainment of socially desirable goals. It is said that the lower classes are alienated from or not integrated with life as it exists in the larger society. Thus it would seem reasonable to expect that children from families where occupational status and educational achievement are low will also have low aspirations with regard to future plans and achievements.

The "old" working class[1] is represented by a large segment of the population in this study. It is thought that the old working class composed of skilled and semi-skilled Catholics of Eastern and Central European descent take pride in their status and prefer it to white collar middle class standing; they tend to have minimal mobility dreams for self or children.

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[1] *Cf*., Arthur B. Shostak and William Gomberg, (eds.), *Blue Collar World: Studies of the American Worker* (Englewood Cliffs, N. J.: Prentice Hall, 1964). See especially, S. M. Miller, "Working Class: New and Old," pp. 2-42.

Educational aspirations may also tend to be related to involvement in a verbal culture.[2] Upper class and middle class interaction patterns demand proficiency in abstract reasoning, introspection, and symbolic manipulation. The lower classes do not value verbal skills as much as the upper classes and subsequently do not encourage their development in the young. The social world of those low in the social structure may perhaps be characterized by a mechanistic world-view which stresses physical rather than intellectual prowess and excellence in manual rather than non-manual crafts. Schools, functioning within a middle class system and stressing the importance of verbal skills, may tend to exclude unintentionally the lower and working class child.

It is well known that child rearing practices vary with social class membership.[3] The upper classes train for independence, self-reliance, and character development; the lower classes tend toward authoritarian discipline, relying to a greater extent upon physical punishment. Thus one might conclude that child rearing that takes place in the upper classes is more conducive to the development of intellectual curiosity than the child rearing in the lower classes.

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[2] This position is elucidated in, for example, Mental Health of the Poor, Frank Riessman, Jerome Cohen and Arthur Pearl (eds.). See especially, "Cognitive Style and Language" (New York: Free Press, 1964), pp. 172-205.

[3] Cf., M. Kohn, "Social Class and the Exercise of Parental Authority," American Sociological Review, 24 (1959), pp. 352-366.

Social class in the case of an individual family may not be the same at the point in time in which each sibling is born. Social class is regionally determined, in part, so that a sibling born in the North, for example, may be entering a widely diverse social milieu from one born in the South. Also with the possible occurrence of social mobility, a later born sibling may be entering a family which is solid middle class while the elder sibling arrived when the parents were younger and still aspiring to middleclassdom. But in most cases, it may be assumed that siblings share the same social class and socialization experiences in this respect tend to be similar.

Hypothesis The higher the social class, the greater the tendency for both siblings to expect college.

2. Family Structure

a. Family size.--By family it is understood we mean the nuclear family, and by size, the number of siblings in the nuclear family. Popularly one may speak of small and large families with large usually defined as upwards of four or more. Bossard and Boll[4] develop a theoretical framework for this dichotomy. They speak of large and small family systems and delineate a constellation of attitudes, values and beliefs thought to be associated with each size.

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[4] James Bossard and Eleanor Boll, op. cit., 1956a.

It is not new to speak of the ideology and behavior of a group as being associated with, if not determined by, the size of the group and the composition of its members and their personal attributes. Simmel was one of the first to comment extensively on the small group or "forms of sociation." Group size and the nature of group interaction are variables which small group research has considered. Findings relating the effects of group size and composition to the attitudes and judgments of its members are familiar. It is known, for example, that as the size of the group increases, members are less likely to maintain a distinct identity, the number of possible relationships and interaction patterns increase with the probably formation of "isolates" and coalitions, leadership becomes more differentiated and consensus in decision-making becomes more difficult.

Research concerning the three person group is especially applicable to the single child family. The triad is inherently unstable; there is a tendency for this group to break down into "two against one." This alignment tends to occur when the birth of the first child changes the relatively stable husband-wife dyad into a triad. In the case of the "only" child, this triadic situation remains. Depending upon the situation, the child may side with one or the other parent or the parents may form a coalition in opposition to the child. Andry speaks of the familial triad as:

> a relationship which is subjected to constant frustrations among all concerned, be it through the arrival of other siblings or through each member of the triad failing to respond appropriately to the others' needs.[5]

Sibling interaction may be patterned to some extent by sibship size. In the case of three siblings, for example, a two sibling coalition may form from time to time, its members determined by its needs, and succeed in excluding the third from an activity or coerce his behavior in line with the wishes of the other two.

As the size of a group decreases, the strength of the affectional ties between members increases with the dyad allowing the possibility for the greatest degree of intimacy. Resources such as time and money tend to increase per child as family size decreases. With one child, the parents have maximum time to "help with homework," support the child as he attempts to cope with emotionally threatening aspects of school life, and otherwise further a positive orientation to schooling. Also the time spent in parent-child interaction may tend to cancel the influence of peers. With respect to education, this peer influence may tend to be in opposition to the parents'.

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[5] R. G. Andry, "Parental and Maternal Roles and Delinquency," in Deprivation of Maternal Care: A Reassessment of Its Effects, M. Ainsworth, R. G. Andry, R. Harlow, S. Lebovici, M. Mead, D. Prugh and B. Wootton, (eds.) (New York: Schocken Books, 1966), p. 235.

Hypothesis Families containing siblings without college plans will tend to be larger than families in which one or more siblings expect to attend college.

Family size tends to interact with social class. Lower class families tend to be larger than families further up in the social class hierarchy. Family size is inversely related to the mobility of parents in the family of procreation. That is to say, adults who are socially mobile tend to have fewer children than those who do not experience mobility. Children disadvantageously planned often succeed in blocking mobility and thwarting the stimulus thereto. It is reasonable to assume that mobility in the family of orientation may also suffer from largeness.

Hypothesis In the working class, there is a greater tendency for both siblings to expect college if the sibship is small.

b. Sexual Composition.--Sex is an ascribed characteristic which is primary in shaping identity. We have in society a division of labor by sex and a corresponding division of attitudes, values, and beliefs. Early socialization is largely composed of instruction in behaviors which are appropriate for males and those which are suitable for females. Thus it is to be expected that males might tend to regard studies such as poetry effeminant and females not feet at ease in a chemistry laboratory.

Sex roles emerge through family interaction as well as by being defined by the larger society. Children often select their parent of the same sex as a role model. Interaction tends to proceed along "same-sex" lines. Parents, for example, tend to interact more with their children of the same sex, especially in matters of discipline. A result of this interaction might be a son defining as legitimate dropping out of school if his father did not finish high school and was able to "make it O.K."

If parents have a low income, they may be of the opinion that a college education is not necessary for females whose main purpose in life is "to marry and raise a family." Females may be groomed for popularity and encouraged to develop, at best, secretarial skills, while males may be expected to learn a trade, pursue a business career, or develop mathematical and scientific interests in college. Thus the sex of siblings may be one of the factors which influence family interaction and subsequent development of attitudes toward school and higher education.

Sex may not be as important a determining factor in the single-child family as it is in a multi-child family. A single-child female, for example, might have to incorporate the expectations parents have for males as well as those they would have for females. An illustration of the latter would appear if a larger proportion of only child females than females with a male sibling plan to go to college, controlling, of course, on other relevant variables such as family income.

Siblings of the same-sex would tend to be more similar in their behavior than cross-sex siblings because of a common sex-linked socialization. Likewise the older sibling in a cross-sex pair may exert influence on the younger if the older is accepted as a role model. Females with older brothers, for example, may be more similar in their behavior to males than females with younger brothers who are not legitimate role models because of their age. When extreme disagreement does exist in the case of the same-sex siblings, the conflict might be accounted for in terms of each sibling striving for a unique identity, avoiding imitation of the other.

Hypothesis In the working class: (a) if a younger sibling expects college and an older one of a pair does not, the older is likely to be a female; (b) when both siblings expect college, they will be male more frequently than female.

c. Birth Order.--The "intensive socialization" hypothesis is often used to interpret differences revealed by research which exist between first and later born children. This hypothesis posits an enviable position occupied by the first born in terms of the amount of parental time he can demand and the greater opportunity he has to learn directly from adults than do later born children. The older a sibling, the more exposure he has had to values, norms, and beliefs of the family group. If parents are political radicals, a child at age fifteen may more accurately reflect this view than the same child when age twelve. The maturation process may work in favor of the first born child if first/later comparisons are made at the same point in time.

While the only child by definition is never dethroned from the "enviable" position near the parent, the first born must relinquish claim with each successive birth. Thus it is implied that the first child does not have the opportunity to develop to the heights of the "only," especially if he is first born in a large family. The only child, on the other hand, is thought to be at some disadvantage by not having a sibling. He may suffer from an absence of peer-age contacts and tend to be not as "well-adjusted."

The extent to which the "intensive socialization" hypothesis is accurate may be a function of family social class membership. That is to say, greater enthusiasm attendant upon the birth of the first born than later children and more interest in his growth and development, sometimes to the point of "pushing," may be characteristic more of the middle class. If births in the lower classes tend to be unplanned and unwelcome no matter what the ordinal position, middle class achievement orientation would be as unlikely to appear in a first born sibling as in a later born one.

Perhaps siblings tend to be more in agreement with each other when neither is a first born. In addition to the "intensive socialization" hypothesis unique for the first born, the first born occupies the "foreman" position and is forced to mediate the demands of younger siblings, on the one hand, and parents on the other. The first born also experiences more changes in group structure than any other sibling. With each addition, there must be an appropriate adjustment made. To the extent that this adjustment is successful, the self esteem of the first born may tend to be high. The "personnel" added at a later date do not experience such a radical shift in status and do not as frequently have to restructure interaction patterns as the first born. This later personnel may have more in common with each other than with the first born.

Hypothesis Two later born siblings are more likely to be similar in their behavior than a sibling pair in which the older is a first born.

d. Age Interval.--The age interval between siblings may be associated with the extent to which they share certain self-attributes, values, and behavior. When siblings are close in age, they tend to have similar needs and experience like demands upon parental resources. In such a situation, sibling rivalry may be more intense than a sibship where siblings were spaced further apart. When siblings are five years apart, for example, each child has some of the benefits of an only child status. Older siblings may have reached a level of independence where competition on an equal status basis with younger siblings is not realistic. Further, when siblings are spaced at relatively wide intervals, older siblings may act as role models or parent surrogate for younger ones more effectively perhaps than when siblings are placed closer together. Also if older children share parental values, the task of transmitting these values to younger children is easier for parents, perhaps, than when all children approximate the same age.

Allison Davis is of the opinion that a child's learning of that behavior which is appropriate to his age and sex is motivated not only by social instigations, but also by the emotional interaction between him and his parents and siblings.

> . . . children with siblings near them in age have constantly before them the goal of the older siblings' behavior to pace them in learning the appropriate age-sex behavior. The only child, the first child, or a child separated by about six years from the nearest sibling, on the other hand, has to face a tremendously steep age-barrier . . . the only or first child is stimulated constantly by his parents to strive for adult privileges.[6]

Thus competition for parental favor is expressed through a system of age-sex privileges.

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[6] Allison Davis, "American Status Systems and the Socialization of the Child," in Personality in Nature, Society, and Culture, Second Edition (Rev.), Clyde Kluckhohn and Henry A. Murray (eds.), with the collaboration of David M. Schneider (New York: Alfred A. Knopf, 1956), p. 571.

Hypotheses

(a) Sibling pairs are more likely to expect college if separated in age by a relatively large age interval.
(b) The relationship will be stronger if the older sibling is the first in his sibship.
(c) The relationship will be stronger if the older sibling is a male.

## 3. Sibling Identity

If the socialization experience in a sibship differs by sibship position, it is reasonable to expect that birth order may tend to be associated with characteristic self attributes. Self esteem and alienation are two self attributes which may tend to be related to socialization in specific sibship positions. Morris Rosenberg notes the relationship between self esteem and anticipated occupational frustration. Of those students with high self esteem, 12% expect to experience frustration in line with their occupation as compared with 27% with the same expectation among those with low self esteem.[7] Perhaps self esteem also relates to college expectations.

Hypothesis A student who expects to attend college will have higher self esteem and lower alienation than his sibling who does not expect to attend.

## 4. Student Role Performance

a. Intelligence and Achievement.--Intelligence among family members is highly inter-correlated.

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[7] Morris Rosenberg, *op. cit.*, p. 237.

Achievement in school tends to be related to intelligence and college expectation. Do these associations remain intact when siblings in the same family have different college expectations?

Hypothesis

(a) Siblings differing with respect to college will not tend to differ with respect to intelligence.
(b) A sibling expecting college will tend to have higher achievement than a sibling not expecting college.

b. Success and Education Values.--Those who expect college may also be more optimistic about their future success as, in our society, one tends to be a prerequisite for the other. Also siblings expecting college may espouse a more positive attitude toward education than those not expecting to attend.

Hypothesis A sibling expecting college will tend to value education and be more optimistic about future success than one not expecting to attend.

5. Social Perceptions

a. Social Class Estimate.--Subjective definitions of reality are often the basis of behavior. Although children in the same family share the same social class, it it conceivable that their objective assessments may vary. Perhaps a middle class self-definition is related to college expectation.

Hypothesis A student expecting college will tend to make a higher social class estimate than his sibling not expecting to attend.

b. Parental and Peer Influence.--The perceived expectations of parents and friends no doubt have an impact on the expectations siblings hold for themselves. One might predict a congruence in expectations. That is to say, a student expecting college would perceive his parents as expecting him to attend.

Hypothesis Siblings expecting college will perceive their parents as desiring them to attend and will tend to have friends whom they perceive as also expecting to go to college.

6. Discussion of Plans

College expectation may have its source in the significant others with whom students have discussed their future. A younger sibling stands to benefit more from an older sibling also interested in college and having had discussions with parents and school personnel.

Hypothesis When both siblings expect college, the older will tend to report higher frequency of communication with a variety of significant others than will the younger.

Hypotheses are classified in Figure 2, on the following page.

## C. Precedures

1. The Population

The population consists of 481 students attending a senior and junior high school in a socially cohesive mill town in the Greater Pittsburgh vicinity. The two major industries, a steel mill and a glass factory, supply

FIGURE 2. CLASSIFICATION OF HYPOTHESES

| Subject of each Series of Hypotheses | Block Designation of Variables in in Figure 1 | Variables Being Related to Test Hypotheses in Question | | |
|---|---|---|---|---|
| | | Independent | Intervening | Dependent |
| The Relationship between Family Structure and Siblings' College Expectation | II x IV | Family Structure | | College Expectation |
| The Relationship between Social Class, Family Structure and Siblings' College Expectation | I<br>II x IV | Social Class<br>Family Structure | | Same as above |
| The Relationship between Family Structure and College Expectation as modified by selected attitudes, values and behaviors | II x IV; III | Family Structure | Student role performance; social perceptions; discussion of plans | Same as above |
| The Relationship between Social Class, Family Structure, and College Expectation as modified by selected attitudes, values, and behaviors | I<br>II x IV; III | Social Class<br>Family Structure | Same as above | Same as above |

employment. School records list "laborer" as the occupation of most fathers. Other categories represented are teacher, clergyman, storekeeper, clerical and service worker. The professional, managerial, and technical groups associated with local industry tend to live in nearby middle class suburbs.

Ethnically, the community is quite homogeneous, composed predominantly of second wave immigrant descendants from Central, Eastern, and Southern Europe. Jews, however, are absent. Negroes comprise two per cent of the population and tend to be economically integrated with the whole. The Old Stock Americans are represented in substantial numbers as witnessed by fifty per cent of the population's belonging to Protestant religious denominations.

Students were selected with respect to being either an "only child" or having a sibling(s) in attendance in the public school. Twins, Negroes, and third siblings (a sibling from the same family in which two older siblings were present) were omitted. Thus the population consists of 71 children from single-child families and 410 siblings from 205 families. (See Appendix A)

## 2. Research Design

This study is based upon the analysis of data collected by means of questionnaires from 481 students and supplementary demographic and school achievement data obtained from school records and student autobiographies.

(The total school population was included in the design of a larger study attempting to assess the relationship between poverty and educational deprivation.[8]) The larger study thus constitutes a baseline by which the distribution of the sibling population may be compared.

Another baseline is provided by the population of "only children." Behavior cannot be attributed to interaction in a given type of sibship if it occurs with equal frequency among "only children."

3. Data Collection

Demographic data including race, religion, and ethnicity were obtained from school records for each of the 481 respondents by this researcher in 1966. For the most part there exists a built-in reliability check on the data as such information is identical for all siblings in the same family unit.

Family structure data were also obtained from school records. Birth ordering within the sibship, its sexual composition, and size were recorded. Likewise marital status of the parents and presence of step-parents were noted as were sibling deaths and adoptions. The validity of this school record data can be judged by the strength of its correlation with student self-reports on many questionnaire items designed to tap similar information.

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[8] The basic and applied research project is entitled "The Relationship Between Poverty and Educational Deprivation." The project is under the direction of Professor Edward A. Suchman, Professor of Sociology, and is funded jointly by the United States Office of Education (Grant Number OEC-1-6-061254-0809) and the Learning Research and Development Center of the University of Pittsburgh.

Course grades and intelligence scores for each student were also recorded. The former are used as achievement measures.

The pre-tested questionnaire was group administered during the winter of the school year 1965-1966 to the total population in grades 7-12 of a senior high and junior high "feeder" school. The questionnaire was filled in by students and collected by a research assistant in two sessions each of one hour duration, thus reducing the probability of response "fatigue."

## 4. Measurement

Social class is measured by the Hollingshead Two Factor Index of Socioeconomic Status (Appendix C); family structure is defined by single-items. These single-item variables and their distributions are summarized in Appendix B.

All other variables are measured by Guttman scales with the following exceptions--intelligence (Stanford-Binet), achievement data (teacher grades), and level of education expected, social class estimate, discussion of plans, perceived parental expectations and friends' plans (single-items).

The items which compose the Guttman scales, the distribution of responses to each scale item, the distribution of respondents by their scale scores, the cutting points by which scale types are collapsed, the distribution of the collapsed category frequencies, and the coefficients of reproducibility are included in Appendix C. for each of seven scales. The variables measured in this manner are: self esteem, alienation, attitude to parents, attitude to teachers, acceptance by classmates, educational values, and success optimism.

### 5. Analysis Plan

The variables were cross-tabulated in line with the causal model and derived hypotheses. Breakdown analysis using contingency tables was used to the extent allowed by the total sample size and given cell frequencies. Agreement with respect to college plans of sibling pairs was assessed in the following manner. Responses of older siblings were "correlated" or run by the responses of their younger siblings. This cross-tabulation technique resulted in the number of variables being artifically doubled. Or to look at it another way, there exists two variables--the older sibling's and the younger sibling's score on a selected variable.

For example, rather than looking at the relationship of variable "a" to variable "b" or birth order to education expected, we are looking at the relationship of the older sibling's response to "b" by the younger sibling's response to "b" or the older sibling's expected education by the younger's. Causal direction is not implied, although theoretically interesting, indeed.

The resulting cross classification of the older's response by the younger's is "sibling agreement." The categories in the contingency tables were collapsed to form four types of agreement. That is, both siblings may expect college; the older may expect and not the younger, or vice versa; neither may expect college. In the last category is included both those who expect vocational training and those with no ambition beyond high school. Frequencies in the collapsed categories were percentaged on the total base.

Ratios were taken as a means of comparing response distributions of "only" children with siblings. The ratio tells us which group tends to appear more frequently in a given category. A ratio of "one," of course, indicates no difference.

Finally sign tests and "t" tests assessing statistical significance were performed when indicated to determine whether groups of siblings differed with respect to intervening variables as well as with respect to the dependent one--college expectation.

# III. ANALYSIS

This analysis has two major goals. The first part of the analysis is an attempt to relate college expectations of sibling pairs to aspects of family structure and social class. The second half of the analysis suggests attitudes and behavior as possible intervening variables occurring in the relationship between family structure and educational horizons.

Before giving our attention to the specifics of the first goal, it may be of value to briefly turn to some background data.

## A. Background

The relationships presented as background for the main analysis are derived from the population as a whole (N=410) without reference to the sibling pairs it contains. It is thought that a map of social forces pertinent to the general population may provide clues to the nature of the relationships existing among matched sibling pairs.

Data from this research serve to further confirm the consistent findings of past research with respect to the relationship between demographic factors and college expectations:

1. Social class is positively related to the level of education a student expects. Among students from white collar backgrounds, 53% expect a college education as opposed to 35%

from blue collar homes. (Table 1.01)

2. Students from small families expect more education than students from large families. Fifty per cent of students with less than four siblings expect to attend college; the equivalent for students from large families is 36%. (Table 1.02)

3. Males tend to expect a college education more frequently than females--45% and 38%, respectively. (Table 1.03)

4. The earlier one's birth order in the sibship, the more education one tends to expect beyond the high school level. Among students who are first born, 15% do not expect to continue their education after high school. When students are third or later born, 34% report similar intentions; and second borns indicate 20%. (Table 1.04)

Presented with the above statements, one responds immediately to the inter-relatedness of the variables. Birth order, for example, tends to be related to family size and family size to social class. In small families, 7% of the students are later born while in large families 25% are later born. (This relationship is a matter of definition as later born siblings are what make large families large. Table 1,05) Birth order is also related to social class. Among first born students, 37% are from white collar homes and 27% from blue collar backgrounds. (Table 1.06) The relationship between family size and social class, however, is more tenuous as it is not significantly related as measured by chi square. Nevertheless, 50% of white collar students have three or more siblings as opposed to 56% from skilled blue collar homes and 62% from unskilled occupational backgrounds. (Table 1.07)

Given the inter-relatedness among birth order, family size, and social class, it is interesting to determine to what extent these variables operate independently in producing their effect with respect to expected education. (Tables 1.08-1.09) Secondly attention must be paid to variables intervening in the relationship between a student's position in his social and familial structure and his educational expectation.[1] Since, however, an analysis on the sibling level is the primary objective of this research, relationships within the unmatched population will not be pursued any further.

## B. Analysis of Sibling Pairs

When one asks the question: "Why will one student expect to go to college and not his sibling?" it is diferent from asking why one student will elect college and one from similar background will not. Although the latter query has provoked considerable research and comment, the former question implicitly considers factors not possible in the more general case. Such variates, for example, as family milieu, discipline climate, "private meanings" of family rituals and experiences, and general value orientation including esteem with which education is held are automatically matched in sibling research designs.

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[1] The sibling population is included in the analysis of a larger study (N=5,632). See, D. Q. Brodie, "The Effect of Social Influences upon Students' Educational Horizons," unpublished Doctoral dissertation, Department of Sociology, University of Pittsburgh, 1968.

Because of the idiosyncratic nature of these family variables and the difficulty with which they are specified, it is difficult to take them into consideration unless siblings are studied. Nevertheless, they are believed to be relevant as they constitute the flesh and blood behind the otherwise barren demographic statistics. Siblings, of course, are also matched on the more obvious shared social characteristics--social class, family size, race, ethnicity, place of residence, and religion.

### 1. Sibling College Plans: The Dependent Variable

The dependent variable to be explained is not simply college expectation, but college expectation of one adolescent compared with his sibling's. Thus there are four questions with which to come to grips:

1. When will both siblings expect college?
2. When will neither sibling expect college?
3. When will only the older sibling expect college?
4. When will only the younger expect college?

Perhaps instances of disagreement among siblings with respect to college expectation are most interesting when a sex difference does not exist; one would tend to think that social influences present in a family sufficient to motivate one sibling would motivate another.

Data indicate that 26% of sibling pairs expect to attend college (Figure 3). One might tend to expect a working class population of limited financial means to

FIGURE 3. EDUCATION EXPECTED BY SIBLING PAIRS*

| Education Expected | Sibling Pairs (%) | Sibling Pairs (N) |
|---|---|---|
| Older Expects College | 12 | 21 |
| Younger Expects College | 21 | 44 |
| Both Expect College | 26 | 53 |
| Neither Expect College | 41 | 87 |
| Total | 100 | 205 |

allocate its resources to the older sibling, or the more promising one. However, the group of sibling pairs in which the older expects to attend college and the younger does not constitutes 12% of the total, the smallest group represented. The tendency for both siblings to expect college if one expects to attend may indicate the influence an older sibling may exert on a younger or a tendency for parents to give equal encouragement and funds. Without further speculation, let us view this distribution of college expectation by social class.

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*Given a working class population, it is not contrary to expectation for the group of sibling pairs not expecting a college education to be most highly represented. For purposes of analysis, though, it is indeed unfortunate that the distribution by siblings is so heavily skewed in the direction of no expectation. For the most part, categories will not be collapsed as there exists no theoretical rationale for doing so.

2. Hypotheses Tested: Part 1.

Hypothesis The higher the social class, the greater the tendency for both siblings to expect college. (Table 2.01)

Among siblings from white collar backgrounds, 48% of sibling pairs expect a college education. Twenty per cent of siblings from skilled blue collar homes have this expectation while only 14% from unskilled blue collar origins expect college. Differences in income might explain, in part, the differences in expectation between the white and blue collar groups, but it is not sufficient to explain differences within the blue collar group. Blue collar groups have the same percentage not expecting college. Differences occur with respect to whether an older or a younger sibling expects to attend. In 26% of sibling pairs in the unskilled blue collar class, the younger sibling expects college as opposed to 12% in the skilled blue collar class. Perhaps it is not until the later high school years that adolescents from lower class homes realize that they will not attend college with the same frequencies as their more middle class peers. Their early college expectations may be thwarted by lack of reinforcement or "realistically" channeled by guidance counselors along more vocational lines.

Keeping in mind the distribution of college expectation in sibling pairs by social class, let us consider the effect of family size and then the interaction of the two.

Hypothesis Families containing siblings without college expectations will tend to be larger than families in which one or both siblings expect college. (Table 2.02)

The mean family size of the group in which both siblings expect college is 3.2. The mean family size of the group in which neither expect college is 3.6. There is a significant difference between the size of these groups as measured by the Student's "t" test. Similarly, the family size of the group in which neither sibling expects college is significantly larger than the groups in which either the older or the younger sibling expect college.

Table 2.03 further indicates that family size tends to be associated with college expectation. Sibling pairs from small families report 50% expecting college as opposed to 30% from large families. The relative weight to be assigned in an interpretation of this association to such factors as the dynamics of family life in the small and large family as opposed to economic resources available for education may be in part discerned from the interaction of social class with family size.

Hypothesis In the blue collar classes, there is a greater tendency for both siblings to expect college if the sibship is small. (Table 2.04)

Does small family membership aid siblings in all social classes to the same extent? It is hypothesized to be more crucial in the lower classes than in the middle class where college expectation is the norm rather than the exception and financial resources are adequate. In the unskilled blue collar group among siblings whom both expect a college education, 64% are from small families as opposed to 60% in skilled blue collar homes and 48% from white collar backgrounds. The relationship between social class and college expectations of siblings controlling on family size is significant as measured by chi square only in the unskilled blue collar group. A similar although insignificant pattern is present in the skilled blue collar group. No association is present in the white collar group. The small number of cases in the white collar group with neither expecting college prohibits anything but tentative conclusions. In general there is some indication that small family membership encourages the expectations of sibling pairs with respect to college if they are from the blue collar group, but is not relevant in a higher social class.

Sex is another variable relevant to college expectation. Will sibling pairs, for example, in which the younger expects college tend to have a female for an older sibling by greater than chance expectancy?

Hypothesis In the blue collar classes, if a younger sibling expects college and the older one of the pair doesn't, the older is likely to be a female. (Table 2.05)

In the blue collar group in which the older sibling expects college, 67% are male. Likewise in the group in which the younger sibling expects college, 62% of the older siblings are female. This finding suggests a tendency for the male of a mixed sex sibling pair to expect college more frequently than the female. The relationship between the sex of the older sibling and the relative age of the sibling expecting college--either the older sibling or the younger sibling--does not attain significance at the .05 level as measured by chi square.

What pattern emerges when the sex of the younger sibling is also taken into account? Table 2.06 indicates that the younger sibling regardless of sex will tend to expect college more frequently than his or her older brother or sister. Thus finding suggests that at some point in one's school career, age tends to be a more relevant variable than sex with respect to its effect on college expectation.

When the sex of the younger is the same as the older brother or sister, both siblings are more likely to expect college than when their sexes are dissimilar. Table 2.07 presents data reporting that 38% and 29% of same-sex groups expect college as opposed to 20% and 17% of siblings with cross-sex identities.

To further illuminate college expectations of sibling pairs by sexual composition, let us consider the sexual composition of the group in which both siblings expect college.

Hypothesis In the blue collar group, when both siblings expect college, they will be male more frequently than female. (Table 2.08)

Data are not in line with this hypothesis. In the blue collar group among sibling pairs with both expecting college, only 27% of both siblings are male as opposed to 52% in the white collar group. All female sibling pairs compose 27% of the blue collar group and 30% of the white collar group. The largest percentage difference in sexual composition by social class occurs in the mixed sex pairs. In the blue collar group, 46% of sibling pairs with both siblings expecting college are mixed sex as opposed to 18% in the white collar group.

The relationship between social class and sexual composition of sibling pairs in which both siblings expect college approaches statistical significance at the .05 level of probability as measured by chi square. The substantive significance of this relationship, however, far out-weighs its statistical significance. The blue collar group emerges as distinctly different from the white collar group. (It is only the white collar group which exhibits traditional sex patterns with respect to college expectation.) Since an ascribed characteristic sex with its incumbent sex role is not associated with college expectation, perhaps expecting to attend college is more a function of achieved status. If this is the case, we would expect scholastic achievement and other intervening variables to play a more central role in determining college expectation on the part of both siblings in the blue collar group than in the white collar group. We will pursue this line of reasoning in a following section.

Unlike sex, family size, and social class, siblings are always at variance when it comes to birth order. Since both social class and birth order are related to each other and to educational expectation, it is interesting to look at the relationship between birth order of the older sibling in the pair and college expectation controlling on social class.

Hypothesis Sibling pairs are more likely to expect college if the older sibling is a first born child. (Table 2.09)

In each social class among sibling pairs both expecting college, birth order has the same result. If the older sibling is a first born, both siblings are more highly represented in the college group than when the older sibling is not a first born--70%, 67%, and 64%, moving down the social class hierarchy. However first born siblings are also more highly represented in the group of sibling pairs in which neither sibling expects college in the white collar and skilled blue collar group. It is only in the unskilled blue collar group where the hypothesis shows any indication of being confirmed. In this group 60% of siblings not expecting college have an older sibling who is not a first born. This finding should be interpreted in light of the fact that it is in the unskilled blue collar group where family size is most significantly associated with education expected (Table 2.04).

The smaller the family, the higher the probability that siblings will expect a college education. Also since birth order and family size are related (Table 2.05), there is a higher probability that in the lower class: (1) the 64% of siblings who expect college and have an older sibling who is first born come from small families; and (2) the 60% of those who do not expect college have an older sibling who is not first born come from large families.

The birth order literature repeatedly demonstrates that first born siblings tend to be over-represented in college populations. Our data indicate that in the group of siblings pairs in which the older sibling expects college and the younger doesn't, the older tends to be a first born. It is only in the white collar class, however, that when only the younger sibling expects college his older brother or sister tends not to be first born. Three points may be relevant here in interpreting this statistic. First, middle class child rearing tends to put pressure on the first born to achieve, especially if the first born is a male. Therefore, if an older sibling expects college, the student would tend to be a first born and if a younger sibling expects college, his older sibling who doesn't expect college would tend not to be a first born. This pattern would not be true in blue collar homes because of a second factor, sibling sex. In Table 2.05 it was noted that if one sibling expects college in a blue collar family, the student will tend to be male. Therefore sex of an older sibling may be more important than birth order in determining which one expects college. The third point concerns family size. In the blue collar classes, the tendency for one of a sibling pair expecting college to have an older sibling who is first born or be a first born himself indicates that siblings may be from small families rather than large.

Let us look more closely at the interaction of sex and birth order in its relation with college expectations of siblings.

Hypothesis Sibling pairs are more likely to expect college if the older sibling is a first born male. (Table 2.10)

In the case of sibling pairs in which the male is the older, sex operates independently of birth order in determining college expectations. Whether the older male sibling is a first born or a later born child, the same percentage of sibling pairs expect a college education--30.8% and 31.7%, respectively. A different pattern emerges in the female sample. If the older female is a first born child, she and her brother or sister will both expect college with a frequency of 28.8%. A sharp contrast is provided by the group of sibling pairs in which the older sibling is a female but also a younger sibling within her sibship; 12.5% of this latter group both expect college.

This data could be interpreted to mean that sibling pairs containing females are more dependent upon structural supports within the sibship such as family size and ordinal position than males. Female college expectation may tend to be mediated through sibship structure to a much greater extent than college expectations on the part of males. The small sibship may be more crucial in fostering college expectations in females than in males. Males do not tend to be hindered by sibship structure as readily as females. Males may also receive more support from sources outside the sibship as well as from within it.

Having considered the effect of sex and birth order on college expectations of siblings, there remains one sibship structural variable yet to be considered. This variable is the number of years separating each sibling in the pair. Child spacing has been shown to be related to the mobility of parents. That is the greater the age span between first and last child and the longer parents wait after marriage to have children often is related to the mobility they are able to achieve. It is an empirical question whether spacing may be related to the mobility experienced by the children themselves.

Hypothesis Sibling pairs are more likely to expect college if separated in age by more than two years. (Table 2.11)

It was found that 31% of sibling pairs separated by more than two years expect college as opposed to 23% of sibling pairs relatively close together in age. The other side of the coin shows 38% of siblings widely spaced to have neither sibling expecting college while 43% of pairs close together in age do not expect college. In drawing conclusions it would be beneficial to have the total sibship represented in term of age intervals as looking at intervals between one pair may not be indicative of the total pattern. Nevertheless, there is some indication that siblings widely spaced are more likely to both expect college than siblings closer together in age.

Table 2.09 indicates that in each social class, sibling pairs including a first born sibling were more likely to both expect college than pairs not including a first born. One might expect that pairs including a first born more than two years older than a younger sibling might also tend to expect college at a higher frequency than those not first born and close in age.

Hypothesis Sibling pairs including a first born at least three years older than the younger will tend to expect college more frequently than those not including a first born and closer in age. (Table 2.12)

When sibling pairs contain a first born sibling at least three years older than a younger sibling, 36.5% of this group both expect college as opposed to 23.5% of pairs closer in age and 21.6% and 22% of pairs not containing a first born spaced close together and at relatively wider intervals. Age interval becomes a relevant variable with respect to sibling college expectations when applied to sibling pairs one of which is first born. A pair of siblings widely spaced and including a first born may tend to represent small sibling units more than pairs closer in age if it is assumed that children in a sibship tend to be spaced at somewhat equal intervals. If two siblings are close together in age, all siblings in that family may be close in age. Our data unfortunately do not permit confirmation of this statement, but it may be reasonable to assume that large intervals may occur more frequently in small sibships than large. If this is the case, age interval's relationship with college expectation may be a function of socialization in small familes and increased college chances.

If the relationship between large age interval and college expectation holds up in families of the same size, one might interpret this to mean that an older sibling is able to act more effectively as a role model for a younger with fewer invidious comparisons being made between the pair than when the siblings are closer in age. Also parents may be able to give more time to the development of the older sibling before a younger one usurps their attention.

In addition to birth order, sex is another variable that might interact with age interval with respect to its relationship with sibling college expectation. Perhaps sibling pairs in which at least one male is present and considerably older than a younger sibling may expect college with greater frequencies than other combinations of sex and age interval.

Hypothesis Sibling pairs in which a male is the older sibling by at least three years will tend to expect college at a greater frequency than those closer in age or with a female as the older. (Table 2.13)

Although there is a significant interaction effect between age interval and sex of older sibling, it is not as predicted in the hypothesis. Among a group of sibling pairs in which the female is the older by less than three years, 11% expect college. This percentate is significantly smaller than male groups both close (31%) and widely separated in age (33%) and less than females separated by more than two years, (30%). Furthermore we see that in the group of sibling pairs in which the female is the older by at least three years a total of 63% of one or more siblings expect college. Comparable percentages in the male groups are 59% and 58%, small and large age interval respectively. Although 63% is not significantly different from 59% and 58%, it is interesting because groups in which a male is the older tends to have more siblings expecting college than groups in which the female is the older. (Table 2.10)

That the group in which the female is older by less than three years lags behind all other sibling groups in college expectation can be interpreted to mean that structural supports in sibships tend to be a necessary condition of college expectation if the female is the older sibling. Being a female is not an obstacle to college expectation if the female is first born, (Table 2.10), or if she is more than two years older than the younger. On the other hand, age interval and sex of an older sibling when male do not have a significant interaction effect. Variables influencing college expectations of pairs in which the male is the older operate independently of age interval between siblings.

Sibling pairs in which the female is the older are at the most extreme disadvantage when they are composed of siblings from large, lower class families with both siblings being later born. In this case, no siblings report college expectation. However, 27.3% report college expectations if the male is the older sibling. (Table 2.14) Thus sibling pairs with the female older who expect college come from a much more restricted range of sibship structural types than pairs expecting with the male older.

### 3. Summary

This analysis commenced with the presentation of well known empirical generalizations further confirmed by this study. For example, social class is directly related to college expectation; family size inversely; males expect more college education than females; etc. Then the analysis turned to a consideration of college expectation by sibling pairs. Do social class, family size, and sex, for example, have the same effect upon the expectations of students from the same family as they do upon students in general?

Although family size and social class are both related to sibling expectation, the relationship is most pronounced in the unskilled blue collar class. Among siblings both expecting college, 64% are from families with no more than three siblings.

The relationship of sex to sibling college expectation is quite complex. When both siblings expect college in the white collar group, they tend to be male, but they tend to be of mixed sexes in the blue collar group. On the other hand, when one sibling expects college in the blue collar groups, there is some indication that this sibling tends to be male while there is no relationship between sex and expectation in the white collar group.

Sibship structure is relevant to the expectations of siblings when a female is the older of the pair. If a female is more than two years older than a younger sibling, this group of siblings will have college expectations with the same frequency as pairs in which the male is older. However, if the older female is close in age to a younger sibling, very few in this group will expect college.

Birth order is also related to college expectations of siblings. Pairs in which a first born are included will have higher college expectations than pairs composed of later borns. The interaction of sex with birth order and age interval is dramatic in the case of sibling pairs in which the female is the older. If the older female is first born, she and her sibling will expect to continue their education more frequently than when the older is not first born. Likewise pairs in which first born siblings are more than three years older than a younger sibling are more likely to report college expectations than siblings close in age.

It should be remembered that structure per se is not said to "cause" behavior, but may be related to processes or characteristic attitudes and behavior which in the capacity of "intervening" variables may be thought to affect behavior. For example, siblings widely separated in age may have higher self-esteem than those close in age; self-esteem, in turn, may be related to college expectation and serve to explain, in part, the phenomena of siblings spaced at wide intervals expecting college more frequently than others.

Having made a "head count" to assess the distribution of college expectation by sibling pairs in white collar and blue collar groups and by sibship structure, our analysis now turns to an examination of variables which are psycho-social in nature and are conceptualized as intervening between sibling structural position and educational expectation. A further discussion of the relevance of structural supports in sibships for college expectation will be reserved until the outcome of the intervening variable analysis may be discussed jointly.

## 4. Variables Intervening Between Sibship Structure and College Expectation; Hypotheses Tested: Part 2

The effects of intervening variables are examined on a sibling population matched by definition on such variables as family structure, social class, race, religion, place of residence, and family value orientation including, for example, anti-intellectualism. This analysis will attempt to uncover variables intervening between a sibling's position in his family structure and his expected educational level.

a. Intelligence.--A difference in intelligence is often given as the answer to the question: "Why will one student expect a college education and not another one from a similar background?" Does this answer have any relevance when it is asked with respect to sibling pairs? Since both heredity and environment, determinants of intelligence, are held constant in a family, one might not expect siblings to significantly differ with respect to intelligence. In fact intelligence between siblings in the larger population is generally reported at a figure closely approximating a .5 correlation coefficient.

Hypothesis Siblings differing with respect to college expectation will not differ with respect to intelligence. (Table 3.01)

Data indicate otherwise. A group of older siblings expecting college tends to have higher intelligence than their younger siblings not expecting college. Also when younger siblings expect college and not their older brothers and sisters, the younger siblings tend to have significantly higher IQ's when compared with their siblings. This finding is interesting because not only does it tend to differ, perhaps, from the familiar .5 correlation between siblings, but it also suggests that experimental or achieved differences may be intervening between sibship position and education expected. If differences in intelligence did not exist one might suspect differences in expectation to be related to sex role differences or parental encouragement directed at an older sibling.

b. School Achievement.--In general, school achievement is a necessary prerequisite to college expectation. One might predict a sibling expecting college to have higher achievement than a sibling not expecting to continue his education after high school. On the other hand, achievement is highly related to social class and since siblings share social class, one might expect them to have similar achievement. Also teacher prejudice in grading may run along family lines. If Bobby Jones was brilliant in science, a teacher may expect younger brother Sammy to be also and grade accordingly, whether or not objectively this is the case. Parents may put equal pressure on all siblings, "help" with homework, and confer with teachers with the net result being that siblings tend to have similar achievement.

Hypothesis A sibling expecting college will have higher achievement than a sibling not expecting college. (Table 3.02)

Among siblings pairs in which the younger sibling expects college and the older doesn't, the younger sibling tends to have significantly higher achievement in science than his older brother or sister not expecting college. An older sibling expecting and not his younger sibling has higher science achievement than the younger, but not significantly so as measured by the Student's "t" test.

With respect to math, social studies, and English, the differences are in the predicted direction, but are not statistically significant. The lack of significance could be due, in part, to the fact that the sample is self-selected, and not all siblings take the same courses. Also teacher grades do not approximate a normal distribution. Social study grades, for example, have very little variance and are skewed in the direction of high achievement.

c. Social Class Identification.--A subjective social class estimate need not correlate with objective criteria. Therefore siblings may be at variance when it comes to social class identification. There is some indication that subjective social class varies with sex and age of respondent.[2] Females tend to classify themselves higher than males from the same strata. A certain maturity is essential before one is capable of making the relative assessments which are at the heart of the social class concept.

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[2] Richard Centers, "Social Class Identification of American Youth," Journal of Personality, 28 (1950), pp. 290-302.

One's subjective social class may be a clue to one's reference group. If a sibling's social class identity is primarily middle class, he may be more likely to expect college than one who's identity is other than middle class. Perhaps the W. I. Thomas maxim is applicable: if situations are defined as real, they are real in their consequences.

The community from which the population is drawn is a stable, working class mill town. Socio-economic status is quite homogenous. Students may not be aware of the subtle distinctions which guide adults. Indeed the sociologist is often at odds in classifying the blue collar foreman and the white collar clerical. Therefore one might expect some lack of correspondence between siblings.

Hypothesis Siblings expecting college will make higher social class estimates than those not expecting college. (Table 3.03)

Among pairs of siblings in which the older expects college, 28% of the older siblings make higher SES estimates than the younger as opposed to 5% of the younger who make higher estimates than the older. No difference is evidenced by 67% of the total. Similarly when the younger expects college and the older does not, higher estimates are made by 27% of the younger as opposed to 14% of the older. No difference is reported by 59%. These findings suggest that SES estimate may not be related to maturity *per se*, but may function as a projected standard to which the sibling aspires.

When both siblings expect college, 34% of the older make the higher estimate and 9% of the younger. However, when neither sibling expect college, the younger makes the higher estimate in 23% of the cases and the older in 14%. Thus there is a relationship between relative age, SES identity, and college expectation. A higher social class identification on the part of the older may serve an anticipatory function which is transmitted to the younger sibling, in the case of both expecting college. When neither expect, the older may be so embittered by his lack of a future that it is all but impossible for him to rank himself higher in SES terms than a younger sibling. The younger sibling may make higher estimates because even though he is not expecting college, he is not as disillusioned to date with his life chances or present socio-economic condition.

That siblings do disagree, 49% of the total, has methodological implications for research in general. How "objective" is a social class measure when elicited by questionnaire responses? Perhaps there is variance in objective responses to the same extent that subjective estimates vary. A sibling population is an ideal group in which to explore this problem.

Siblings expecting college, even if the younger of a pair, tend to make higher socio-economic status identifications. Since it is a group expecting college, the higher assessments cannot so readily be attributed to "ignorance." Perhaps there is an interaction between positive assessment of surroundings and striving. The more positive one's social class evaluation, the higher one's expectation. Also the harder one strives, the greater the tendency to positively evaluate one's social status.

d. Self-Esteem and Alienation.--Self-esteem and alienation are two variables which may intervene between position in family structure and college expectation. High self-esteem, for example, may mean the self-confidence necessary to attempt study on the college level. Conversely, high alienation may indicate an inability to attempt self-actualization through continued education. When there is a discrepancy in sibling college expectation, is there also a discrepancy in self-esteem and alienation?

Hypothesis A sibling who expects college will have higher self-esteem and lower alienation than one who does not expect college. (Table 3.04)

Among sibling pairs in which the older expects college, the group of older siblings tends to have higher self-esteem than their younger siblings not expecting college. On the other hand, when the younger sibling expects college and the older doesn't a reversal occurs; the younger has higher self-esteem than the older. The difference, however, is not statistically significant as measured by the Student's "t" test.

Alienation follows the same pattern in sibling pairs as self-esteem. That is to say, a group of pairs in which older siblings expect college has lower alienation among the older siblings. Younger siblings expecting college, however, do not have significantly lower alienation than older siblings not expecting college.

Thus socialization in the same family produces not only differences in educational expectation, but also differences in self-attitudes related to educational expectation. Rather than focusing on different effects of similar socialization as this research attempts to do, it would also be of interest to focus on different socialization experiences within the same family to account for the resultant differences.

e. Significant Other Attitudes.--Attitudes to significant others such as friends, classmates, teachers, and parents may intervene between a student's position in his family structure and his expected educational level. Positive attitudes to those outside the sibship could mean reinforcement and encouragement which may not be provided in the home situation.

Hypothesis Siblings expecting college will tend to have more favorable attitudes to teachers, classmates, friends, and parents than siblings not expecting college. (Table 3.05)

Data tend to confirm the hypothesis in the case of the group of sibling pairs in which the older expects college and the younger does not. The most pronounced and statistically significant difference occurs with respect to attitudes toward parents. When the older sibling in a pair expects college, he is more favorably disposed toward his parents than a younger sibling not expecting college. A reversal takes place when the younger expects and the older does not, but the difference is negligible.

The actual role that significant others play is not under scrutiny. Interest here is in determining whether siblings differ in their feelings toward significant others when one is expecting college and the other is not. The parental relationship emerges as potentially more relevant. Let us consider further siblings' perceptions of parental expectations concerning their future and possible roles played by friends.

f. Perceived Parental Expectations and Friends' Plans.--Will parents differentiate between siblings in terms of the amount of education they expect for each one? Parents might tend to have higher expectations for an older sibling, especially if they tend to live vicariously through their children. (Data record only student perceptions of parental expectations so actual parental expectations go unknown in this research.)

In general, students tend to have friends with the same educational plans. When siblings differ with respect to college, will their friends also differ?

Hypothesis Siblings expecting college will perceive their parents as wanting them to attend and will tend to have friends who also expect to go to college. (Table 3.06)

Sibling perceptions of parental expectations mirror their own plans. If the older sibling expects college and his younger brother or sister doesn't, his perceptions of parental expectations are significantly different from the perceptions of the younger sibling. Likewise if the younger sibling expects college and the older doesn't, the younger perceives higher parental expectations for himself than does his older sibling.

Siblings' plans tend to coincide with their perceived plans of friends more than they do the reported plans of their siblings. When the older sibling expects college, he reports his friends as also expecting college to a significantly greater extent than his younger sibling who does not expect college. This significant pattern is also present in the case of the younger sibling expecting college and not the older. The younger sibling tends to have friends who expect college and the older has friends not expecting college.

Sibling college plans matching their friends and not their siblings could be interpreted to mean that friends are more important than family, if it were not for the finding that siblings perceive their parents as having the same educational expectations as they have. If parents expected both siblings to attend college and one sibling had friends not expecting college, then the influence of the friend might be more crucial than the parent. This however is not the case. Siblings seem to have friends with the same expectations as their parents with respect to college. Or expressed differently, perceived parental expectations of siblings are in line with the perceived college expectations of their friends. Conflict between the interests of parents and friends is not present in the data.

Disagreement between siblings, of course, does exist. It is interesting to ponder whether friends are more responsible for a student's educational expectation than is his sibling. Since a student agrees with the plans of his friends and not the plans of his sibling, this may be the case. Time sequence is not known. Did friends with opposing views cause the disagreement or did the conflict cause the siblings to choose friends with whom they agree? Unfortunately our data do not provide an answer.

Next let us turn to the value one places on education and the degree of success one expects in later life.

g. Educational Values and Expected Success.--The degree to which a student values education may intervene between the strucutral position he occupies and the amount of education he expects. Similarly, if a student expects to be successful, he may also expect a high level of education as the two tend to be correlated in our society.

Hypothesis A sibling expecting college will tend to value education and be more sure of future success than a sibling not expecting college education. (Table 3.07)

When siblings are compared with respect to educational values, it is found that sibling pairs in which the older expects college and the younger does not do not differ significantly. However a significant difference does emerge when younger siblings as a group expect college and their older brothers and sisters do not. The more positive educational orientation on behalf of the younger siblings may reflect a greater idealism corresponding with their youth. If this be the case, their college expectation may also vanish when realistically tested in the later high school years. This interpretation would also apply to the lack of a positive value orientation in the group of older siblings expecting college.

Among sibling pairs in which the older sibling expects college, predictions of future success are significantly higher than those made by the younger sibling not expecting college. The younger sibling's invidious comparison with the older leaves no room for future success fantasies. The mean value of this younger group with respect to success is 2.9. (The maximum value is 3, indicating below average success expectations.)

When younger siblings expect college and older siblings do not, the younger group is not able to conceive of themselves in terms of absolute success or even relative success in relation to an older sibling. Perhaps they suspect that their future will not be any better than their older sibling's. Their pessimism may be due to the fact that their family contains a "failure" older than they are. This older sibling represents a negative role model whose influence must be overcome, or at least, successfully combatted.

So far we have considered variables intervening in the decision of one sibling in a pair to expect college. Yet to be examined are ways in which older and younger siblings differ when in agreement with respect to college plans.

h. Discussion of Plans.--It is possible that older and younger siblings expecting college could receive information about college and encouragement from different sources. After all the younger is in a position to receive encouragement from the older, but the reverse is not necessarily the case, especially if there is a relatively large age gap between the two. Therefore an older sibling may be more dependent upon sources outside the home than a younger sibling. In fact outside contacts may be quite influential with respect to working class students because their non-college educated parents may not provide stimuli necessary for encouraging college expectation. Working class parents who may encourage college, nevertheless, lack first hand knowledge of admission procedures and relative merits of various colleges.

Hypothesis When both siblings expect college, the older reports higher frequency of communication with a variety of significant others than does the younger. (Table 3.08)

The communication rate of an older sibling with his father, mother, teacher, counselor, and friends with respect to plans after high school is higher than the communication rate reported by younger siblings for these same personages. This imbalance in communication occurs only among sibling pairs whom both expect to attend college. If only one sibling expects college or if neither expect college, there is no significant difference in the discussion of future plans on the part of the older or the younger. The one exception is the case of the school counselor. That the older is more likely to report frequent communication than the younger is no doubt a reflection of school policy and the needs of siblings at different age levels.

Communication by significant others is rank-ordered in the same manner by all sibling pairs. Siblings report most communication with friends. Mother outranks father and both parents are placed ahead of teacher. However the group with older siblings expecting college report more communication with a teacher than a similar age group not expecting college report with their fathers. Thus, although actual frequencies differ, relative communication rates appear to be similar for all groups.

In the case of the older sibling expecting college, one might assume that communication with significant others is influential in the decision process. If this be true, how is the decision of their younger siblings to attend college to be explained? The younger siblings have significantly less communication with their friends, mothers, and teachers. In fact younger siblings not expecting college as a group discuss future plans more with their friends than younger siblings expecting college.

The data suggest that an older sibling expecting college may have considerable influence on a younger sibling's decision to do likewise. The younger's lack of discussion with significant others leaves room for speculation that an influence from an older sibling may be noteworthy. This influence may be communicated by nonverbal means. The younger's witnessing the older's decision may motivate the younger to emulate the older. If an older sibling were in college at present or a college graduate, the influence on the younger might be of even greater magnitude. The successful outcome of plans, not only their formulation, might tend to carry weight with a younger sibling, especially a blue collar student in need of realistic reinforcement.

On the other hand, the data should not be interpreted to mean that an older sibling not expecting college actively sways the younger to his position. There no doubt is some influence as an older sibling may be generally thought to act as a role model for a younger.

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However the lack of disparity in communication rates suggests that a younger is influenced by significant others to the same extent as an older. At least a discrepancy in potential influence is not indicated by the data.

It should be noted that when both siblings expect college, there is no significant difference in their intelligence, achievement, self-esteem, alienation, or educational values--variables which might account for the increased likelihood of either an older or younger sibling attending college. For example, if younger siblings expecting college as a group tended to be brighter than older siblings expecting college, their plans might be attributed to their higher intelligence rather than to the influence of their older brother or sister. Since there is no difference with respect to such intervening variables as intelligence, one is more confident in the conclusion that an older sibling's college expectation may tend to influence a younger sibling based on the relative disparities in the communication rates of both siblings.

In sum there is a strong case to be made for the fact that an older sibling expecting college may influence a younger sibling in the same direction to a greater extent than an older sibling not expecting college my influence his younger sibling. This finding would be encouraging to such personnel as guidance counselors. Encouraging a younger sibling to continue his education may not mean that an older sibling not expecting to continue represents the obstacle that might at first be expected. Similarly, a younger sibling whose older sibling is already expecting college might easily be encouraged to also do so.

## 5. Summary

Sibling intelligence in the general population is correlated in the vicinity of .5. Intelligence is a variable which also in the general population differentiates those students who expect college from those who do not, especially if appropriate social class controls are made. It is of interest that intelligence differences also distinguish sibling pairs in which only one sibling expects college. Since intelligence differences do exist, ascribed characteristics such as sex may be down played perhaps in relative importance.

A sibling expecting college tends to have higher school grades than one who does not intend to continue his education past high school. This finding suggests that there are real achievement differences between siblings. Contradictory expectations may be related to behavioral differences rather than to limited economic resources of working class families which might make it possible to send only one sibling to college. This is not to say that an economically depressed environment was not originally responsible for lack of college orientation.

Higher social class estimates are made by a sibling expecting college than one who is not. In the case of both intending to go, the older tends to make the higher estimate. This could be an instance of "anticipatory socialization" on the part of the sibling expecting college. An alternate interpretation would state that siblings not expecting college rate their social environment lower, reflecting their lower aspirations.

There are significant differences between siblings with respect to self-esteem and alienation when the older sibling expects college and the younger does not. In this case the older sibling's self-esteem is higher than the younger one's and alienation is significantly lower. When the younger sibling expects college, differences in self-esteem and alienation "even out," but college expectation *per se* is not sufficient to compensate the tendencies toward lower self-esteem and higher alienation in the younger sibling.

Sibling pairs with differing college expectations do not vary significantly in the extent to which they report their classmates, friends, and teachers to be important to them. Pairs in which the older sibling expects college, however, do evidence more favorable attitudes toward their parents than younger siblings. A reversal occurs when the younger sibling expects college, but the difference is not statistically significant.

Perhaps parents are more permissive with older children and this "permissiveness" is reflected in the attitude measurement.

When one sibling in a pair expects college, there is a tendency for this sibling to perceive his parents as expecting him to attend and perceive his friends as also having college plans. Perhaps an individual is likely to make the expectations of others coincide with his own. There is the possibility that expectations of parents and friends could have affected sibling expectation. A wiser statement would note that college plans do not exist in a hostile climate. That is to say the sibling tends to find support for his decision in both his parents and his friends.

Among sibling pairs in which the older expects college, the older tends to be more optimistic about his future success than a younger sibling about his. The reverse does not hold when only the younger sibling in a pair expects college. Interestingly, though, the younger sibling group expecting college tends to have more positive educational values than an equivalent group of older siblings. The educational values of the younger siblings may exist out of an idealism which may tend to become increasingly less present as the student progresses in a school system thought by many to be hostile to the behavior of working class youth.

When both siblings expect college they tend to differ with respect to only one variable--amount of discussion with significant others about future plans. A clear pattern emerges. The older sibling has a higher frequency of communication with both parents, teachers, friends, and counselor. It is suggested that the older sibling, either directly or indirectly, may be in part responsible for the younger sibling's also expecting to continue his education.

In conclusion it may be said that if one sibling in a pair expects college, that sibling will tend to have a higher measured intelligence, a better school achievement record, a higher subjective social class estimate, and his parents' expectations and friends' plans vis à vis college will be perceived to be higher than a younger sibling's not expecting college. If the sibling is an older sibling, he will tend to have higher self-esteem, lower alienation, more favorable attitude to parents and more optimism with respect to future success than a younger sibling. Younger siblings expecting college are uniquely characterized by positive educational values. We have known for some time that students going to college were distinguished along certain relevant dimensions in ways characteristically different from students not seeking a college education. This research strongly suggests that dimensions may vary in number and relevance depending upon the sibship structure in which the student is embedded and to which the intervening variables themselves also are firmly tied.

Inequality of opportunity with respect to higher education is known to be associated with low social class and large family membership. This analysis has attempted to detail the relationship between sibship structure and college expectations of sibling pairs in the same family in order to add depth to the above generalization. In a similar vein, the sociology of education is concerned with the function of the school both as an instrument of social change and status quo maintenance. Our data indicate the composition of sibling pairs and types of sibship structures which will tend to supply the students likely to take advantage of education as a mobility mechanism. Stratification theory is similarly enhanced by knowledge of sibling mobility; information to date has been largely retrospective and sparse. The full implication of the suggested relevance of this research--in both its theoretical and applied aspects--will be considered at length in the concluding chapter.

# IV. SUMMARY AND CONCLUSIONS

## A. Summary

### 1. Problem

This study attempted to assess the relationship between family structure and college expectations of siblings from working class backgrounds. The inverse relationship between the size of one's family of origin and the level of education one attains has been well documented. Other aspects of structure in addition to size, however, such as age interval between siblings, age and sexual composition have not been examined previously as possible determinants of "life chances" and socialization experiences relevant to educational aspirations. Do structural differences in the family unit tend to have differential consequences for siblings with respect to their subsequent education? If so, what do the differential effects of such membership tend to be? Furthermore, what are the possible types of variables which may tend to intervene between the position a sibling occupies and characteristic, ensuant behavior? These are the questions to which this research was directed.

### 2. Population

The population consists of 276 families residing in an industrial area which is part of a major urban center. The heads-of-household are largely employed by a steel mill and glass factory which are the community's raison d'ètre. The managerial and technical class associated with the local industry, however, tend to reside in nearby middle class suburbs; the immediate community is blue collar with the exception of a few teachers, small businessmen, clericals, and service workers, many native to the vicinity. Unemployment tends to be negligible.

Ethnically, Eastern and Central Europe is most solidly represented; Catholics and Protestants are evenly split, indicating the substantial presence also of Old Stock Americans. Jews are absent; Negroes are few. The Negroes are economically integrated and do not constitute an "underclass."

It is quite evident that the population studied is characterized by idiosyncratic elements, both with respect to physical location as well as in the time during which data were collected. Generalization of the findings in toto to all other sibling populations with different spacio-temporal locations is obviously not possible. It is also acknowledged that somewhat different results might have been found had a transitional or disorganized neighborhood been studied, for example. However, the characteristics of the sample with respect to SES, ethnicity, sex, and religion guarantee the similarity of this sample to many other populations, even though no claims for "representativeness" are made.

## 3. Procedures

The 276 families were selected on the basis of having either an "only child" or two siblings in attendance in the community's public high and junior high schools. Self-administered, pre-coded questionnaires were filled out by students present in two, one hour sessions in the school year, 1965-1966, as part of a larger study (N=5,632) designed to measure the relationship between educational deprivation and future plans among a sample of adolescent students from a four county metropolitan area.

Data reduction proceeded with the construction of a Hollingshead social class index and Guttman scales measuring self-esteem, inter-personal alienation, attitudes toward parents, teachers, and classmates, educational values and success orientation. Response distributions to single items were collapsed into trichotomies and dichotomies as warranted by their marginal distributions.

Single items, the SES index, and scales were interrelated in line with the hypotheses to be tested. Breakdown analysis using contingency tables was used to the extent allowed by the total sample size and given cell frequencies. Sign tests and "t" tests assessing statistical significance were performed when indicated to determine whether groups of siblings with differing college expectations also differed with respect to "test variables."

4. Major Findings

1. Social class is related positively and family size negatively to the college expectations of siblings. The family size relationship is most pronounced in the unskilled blue collar group. When siblings from this group expect college, 64% are from families with less than four children as opposed to 36% from families with four or more children. Families in which at least one sibling expects college are significantly smaller than families in which neither of a pair expect college.

2. When a female is the older sibling, the age interval between them tends to be important in their college planning. That is, if a female is at most two years older than the next child, 11% of this group will both expect college as opposed to 30% if she is more than two years older. On the other hand, if a male is older, equivalent figures are 31% and 33%.

3. Birth order is most strongly related to the college plans of a pair of siblings when the older student is a first born female. Such a group reports that 29% of both siblings expect to continue their education as opposed to 12% when the older's position is later in the sibship. Equivalent figures for older males and their siblings are 31% and 32%, respectively.

4. Siblings evidencing dissimilarity in their future plans also tend to disagree with respect to the following: intelligence, school achievement, subjective

social class placement, and perceived parental expectations and friends' plans. That is to say, the sibling expecting college tends to have higher intelligence, better grades, and a higher social class estimate. He or she tends to perceive parents as expecting more education than a younger sibling not expecting college perceives on the part of parents. The sibling expecting college tends to perceive friends as having similar plans; the sibling who does not expect to continue, likewise, perceives his friends as having the same lack of ambition.

5. If the sibling expecting college is the older of the two, he or she tends to have higher self-esteem, lower alienation, and be more accepting of parental discipline than the younger. The older also tends to be more optimistic when asked to predict success in later life.

6. If the sibling expecting college is the younger of the two, he or she tends to support statements favorable to education. For example, "The more education a man has the better he is able to enjoy life."

7. When both siblings expect college, they tend to differ in the frequency with which they have discussed their plans for continuing their education. A clear pattern emerges. The older has more communication with both parents, teachers, and friends than is reported by the younger.

## B. Conclusions

### 1. Theoretical Implications

a. Structure and personality.--It is generally recognized that the position one occupies in a social structure has consequences with repsect to personality development and subsequent behavior. For example, the mental health of the poor is characteristically different from the mental health of the rich. A worker in a bureaucracy is prey to different attitudes and work styles than those which distinguish a worker in a more Gemeinschaftlich situation.

It is seldom sufficient to measure an attitude or identify a behavior pattern without tracing it back to the social structure in which it is anchored. It is not as meaningful, for example, to say that men on the "line" differ in their work attitudes from foremen unless one has an overall view of the social structure of the organization. What are the entry requirements and differential rewards and obligations of each occupational category?

In our society, males desire and achieve more education than females. This fact is often loosely interpreted in terms of "sex role" apart from a family structural referent. At best different socialization experiences will be cited, but these are usually in terms of sex role learning. Differential opportunities are also thought to favor the male because of his "role." Thus the argument runs: males expect more education and are often given priorities over females because sex role expectations so dictate.

Our study shows that sex apart from sibship structure lacks precision as an explanatory variable with respect to the educational level one expects. Males, in general, do expect more education than females, but this is not true in every type of sibship structure. A girl first in her sibship, for example, is as likely to expect college as a boy in the same position, if they are separated from a younger sibling by a relatively wide interval. And the younger sibling, regardless of sex, expects college with greater frequency than an older. Sex also does not dramatically differentiate the college plans of "only children." Seventy-two per cent of male as compared with 63% of female "only children" expect college.

Our data indicate that given structural supports within the sibship, females will expect to continue their education as often as males. This finding is not meant to invalidate sex role interpretations; rather, it is intended to illuminate them. That is to say, in certain types of sibships, sex role notions may serve the function of an intervening variable to explain why one sibling expects college and another does not. For example, in a large, low income family, a male in the latter half of the sibship may be more inclined to expect college than a female close in age because of sex role contingencies.

Thus sex is not an explanatory variable with global powers, but is important within the context of specific sibship structures. Previous research has considered such contextual variables as neighborhood, school climate, and region of the country. The family's socialization function may also be examined. This research suggests the necessity of including a student's family structure or context in a theoretical model attempting to specify the social origins of college expectation or behavior in the more general sense.

b. Social Stratification.--In an "open" society, social mobility is often the focus of stratification theory. Theory is based on research in which the individual is the unit of analysis. An individual's social status may be compared retrospectively with his father's, grandfather's, wife's, or adult sibling's in order to determine whether movement has taken place. Other theory attempts to predict mobility given an individual's or group's access to known mobility channels and the objective absence or presence of such channels.

This research suggests that the family may make an interesting unit of analysis when mobility *vis à vis* education is the primary concern. Siblings analyzed as pairs from the same family tend to either both expect college or have other plans after high school. Pairs of siblings with conflicting notions about college stand out from the total population as "deviant cases." Thus there is reason to suspect that some family structures are more conducive to mobility than others; if one sibling expects to move up the ladder, another will tend to have similar aspirations.

It might be advantageous to modify mobility predictions to take into consideration the position a student occupies in his sibship. Our data indicate that variables relevant to the expectation of an older sibling are not as relevant to the expectation of a younger. For example, older siblings expecting college tend to be characterized by high self-esteem and low alienation. Although this is also true for the larger population of students expecting college, it is not as relevant if the sibling is in the second half of the sibship. Younger siblings, in general, tend to have lower self-esteem and more inter-personal alienation. Younger siblings expecting college tend to profess a stronger belief in the inherent value of education which may, in part, tend to compensate for feelings of personal inadequacy. Thus variables related to educational attainment may vary in number and magnitude depending upon the student's family structural referent.

An open society is ideologically committed to goals permitting the equalizing of opportunity structures and the full use of human resources; in brief, a "meritocracy." The principles of social heredity, often creating "no room at the top," tend to run contrary to the premises basic to a meritocracy--reward by achievement; not ascription. The pervasiveness of social class distinctions is often held responsible for the failure of a meritocracy or the inability to achieve the same. This research suggests that the large family structure must also be held accountable.

Large families may be less conducive to the development of a child's intelligence than small families. If a child in a large family, for example, appears to a teacher to be dull, this dullness may be an indication of phenotypic intelligence rather than the potential intelligence of which the child may be genetically capable. That is to say, the child's "real" or genotypic intelligence may be masked. This masking it is fashionable to call "cultural deprivation." It is thought that an unstimulating environment may result in low measured intelligence which is not an accurate reflection of one's genetic endowment. This rationale supports such preventive and remedial measures as Head Start. Masking, however, may also occur at the other end of the social hierarchy. What passes for high raw "intelligence" in the upper classes may be social skills and verbal ability.[1]

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[1] This position is expounded at length by B. Eckland, op. cit.

Thus if a society has as its goal maximizing mobility on the basis of merit, its task may not be one of equalizing opportunity, but allowing for its genotypic expression. In this respect, the large family tends to be dysfunctional. The data suggest the desirability of population control by family size regardless of social class. It may be a fallacious assumption that a middle class, large family is able to provide for its members more adequately than those in the lower classes. That is to say, in as much as heredity and environment interact, the small family may tend to be essential for the genotypic expression of intelligence. And the small family concept may be further refined in terms of the desirability of relatively large age intervals between siblings.

In sum, social stratification theory might reevaluate the relative weight assigned to social heredity and achievement in determining mobility. Models simulating mobility tend to assume that intelligence in a population is evenly distributed. Such naiveté fails to take into account the possible masking of intelligence by family structure and social class membership and does not realize the tendency to confuse phenotypic with genotypic expression.

c. Social Change.--Changes in rates of social mobility or in the composition of groups experiencing mobility may result in social change on the societal level.

Thus if family structure is related to educational attainment, it may also, in the long run, be related to social change.

One aspect of family structure is age interval between siblings. Child spacing in our society is governed by such diverse factors as fad and fashion, economic strivings, religious proscriptions, parental age and health, and birth control knowledge and practice. It is possible that at any one time in a society, the above forces, working in combination, could result in the predominance of one type of sibship structure. In as much as socialization may tend to vary by structure and position, the behavior of the younger generation may tend to be correlated with the dominant mode of family structure and characteristic socialization experienced therein.

David Riesman in _The Lonely Crowd_[2] attempts to relate population density over time with changes in the basic orientation of different character types--his _inner_ and _other-directed_ individuals. Riesman has been criticized for failing to spell out the missing theoretical link between fluctuations in the population cycle and the abundance of different character types. Why is population density related to personality?

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[2] David Riesman, _The Lonely Crowd_ (New Haven: Yale University, 1950).

This research suggests that the answer to the above question might take into consideration the dominant family structure in each epoch, not population numbers per se. Differential socialization may be experienced by family size, age, and sexual composition of the sibship. It may be reasonable to expect that an overwhelming number of later born children in a population may have undergone a socialization radically different from that experienced by first born children and thus would tend, as a group, to possess different character traits.

The relative frequencies of first borns and later borns in a population at any given time is related to the modal family size. If the modal size is two, for example, first and later borns tend to be evenly distributed. When the population is increasing, Riesman depicts the formation of an inner-directed character type. Population increase may mean a change in the modal family size and children spaced more closely together. Incipient decline, on the other hand, may mean more first borns in the population and children spaced at relatively wider age intervals. Thus, other-directedness may be related to the socialization characteristically experienced by first born siblings or "only children" in small families in which younger siblings tend to be relatively much younger. In sum an introduction of the birth order and child spacing variables might provide a more parsimonious explanation of Riesman's data.

Social change, planned or "spontaneous," often has consequences originally unforeseen. Social change theories might do well to be cognizant of population trends within a society with respect to both family size and child spacing habits of the populace.

2. Policy Implications

a. The Population Problem.--In other than the lower classes in American society, birth control, once used primarily to limit the overall number of children, is now being used extensively to "space" children. Spacing tends to be due largely to the idiosyncracies of parents, what they consider to be desirable or "ideal." It is foreseeable that in the future population policies may not seek only to limit the number of children, but also to suggest optimal intervals for spacing, given the health and social class of the parents and also what is known about the possible consequences of socialization for siblings separated at relatively small and large age intervals. As artificial insemination or even *ex utero* practices tend to become commonplace, child spacing becomes subject to rational consideration rather than the more or less chance happenings which now determine it.

Policies concerned with child spacing, of course, would have consequences above and beyond child rearing considerations. Child rearing or socialization would be intervening variables in a possible relationship between child spacing in sibships and the accomplishment of gross transformations in mass education. Data in this study suggest that siblings spaced at relatively large intervals are more likely to develop an achievement orientation than those closer together in age.

Aside from the acuteness of the "population problem," the large family may constitute an inefficient unit in which to socialize children, given norms and values stressing self-worth and achievement criteria. Therefore it may be desirable to reduce the occurrence of the large family as a form of familial organization. Perhaps this conclusion has much akin with B. F. Skinner's assertions in _Walden II_[3] that the nuclear family as a generic type leaves much to be desired in terms of an ideal setting in which to socialize children; communal institutions performing the child rearing function are suggested.

b. _Education_.--It is not a new finding that in general students from small families expect more education than students from large families; males more than females. The depressive effect that the large family has on educational expectations is vividly shown by the statistic that siblings tend to have similar future plans. Specifically, among families headed by an unskilled breadwinner and reporting neither sibling in a pair expecting to continue education on the college level, 70% are large.

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[3] B. F. Skinner, _Walden II_ (New York: Macmillan, 1948).

In Talent and Society,[4] McClelland proposes to combat negative home influences by sending students to educational parks disguised as summer camps. Whether or not a summer's experience can be crucial is an experimental question. Another approach might be to make compensatory education programs family rather than individually-oriented. The desirability of this action program might be attested to by the social work profession which has been successful in family therapy.

The data suggest that the task of educators is not one of initially stimulating students on the high school level, but sustaining the interest they may have. Regardless of the sex of sibling pairs, the younger sibling tends to expect more education than the older.

Higher college expectation in the young may indicate an idealism which diminishes or is replaced by realism later in the high school career. This change could reflect guidance counseling efforts or cynicism with respect to the "American Dream." Whatever the casue behind the change in educational expectations, it may have implications for the effectiveness of scholarship programs. Scholarships awarded to seniors who are not highly motivated seldom achieve the desired effect. Perhaps scholarships should be tentatively awarded to students before they reach their final year. Some would argue that this would tend to put pressure on children earlier in life than it is desirable to do so. On the other hand, it may tend to give the same security and reward to the working class or lower class child which the middle class child experiences early in life.

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[4] David McClelland, et al., Talent and Society (Princeton, N. J.: Van Nostrand, 1958), p. 253.

Guidance counselors might well be cognizant of the fact that in some sibship structures females expect college as frequently as males. The notion that "boys want to go to college more than girls" may have the effect of a self-fulfilling prophesy as far as counseling efforts are concerned. If, however, guidance counselors are aware that blocks to female educational attainment may have structural rather than psychological origins, counseling may be better tailored to fit the specific needs of female students.

### 3. Findings Related to Previous Research

Morris Rosenberg in Society and the Adolescent Self-Image[5] attempts to refine the family size variable to take into account the sex and birth order of siblings. He found that 56% of younger boys whose older siblings were chiefly or excusively female had high self-esteem as opposed to 41% of the boys whose siblings were mostly brothers. The interpretation offered involves the gratitude on the part of parents for finally having sired a boy after numerous girls. This gratitude is in turn conveyed to the boy and is expressed as high self-esteem.

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[5] Rosenberg, op. cit.

Our data do not tend to support Rosenberg's finding. Males with an older female sibling report 12% high self-esteem as compared with 15% reported by their older sisters. The failure at replication may be due to the fact that the sex of the entire sibship in our universe is not known; the younger boys in our sample with older sisters may not be true "younger-minority boys." In any case our data indicate that older siblings tend to have higher self-esteem than younger siblings, except all male sibling pairs experiencing similar esteem. Rosenberg's relationship was constant when standardized on social class and religion. Our sample size and composition does not permit parallel comparisons. Also it is not clear to what extent actual siblings were present in Rosenberg's population.

In addition to self-esteem, academic motivation is another attribute which has been thought to characterize individuals in some ordinal sibship positions better than others. Cobb and French[6] found in their study of birth order among medical students that first borns outnumbered later borns with a ratio of 2.43. This ratio increased with size of sibship, independent of father's education and occupation. The ratio was lowest in their small sample of female students. Schachter[7] in a study of a college population found first borns outnumbering later borns at greater than expected frequencies for both graduate and undergraduate students. Bayer[8] in a sample of recent doctorate recipients found the oldest-to-youngest ratio favoring first borns in sibship sizes 2-5 and at every educational level of the father except those with less than an eighth grade education.

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[6] Cobb and French, op. cit.

Our data is composed of high school students with both high and low levels of aspiration. Previous research relating birth order to achievement has been retrospective. Samples isolating high achievers were studied with respect to birth order frequencies. Nevertheless comparisons are interesting; our data is perhaps more generalizable to a larger population--achievers and non-achievers alike.

Among first born students, 41% expect college compared with 44% among second born students and 41% of those born later. Thus on the college level, there is no difference. However, when vocational training is considered, 15% of the first born students do not expect more than high school as opposed to 20% and 34% among those students second and later born.

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[7] Schachter, op. cit.

[8] Bayer, op. cit.

When "only children" are included in the student population and a social class partition is made, patterns of achievement by birth order are suggested but the relationship is not statistically significant at the .05 level as measured by chi square. That is to say, in the white collar group, 60% of the only children expect college as opposed to 36% in the blue collar group. Among students from white collar backgrounds, there is a definite linear progression in expectation from only children to siblings third or later born with respect to college. This progression does not exist among those sharing the blue collar heritage. For example, 32% of first born students expect college; 35% of second born students and 34% of those born third or later.

Thus this research fails to give solid support to past research which presents the first born as achievement-oriented regardless of family size, social class, or sex. Birth order is related to aspiration level beyond high school with respect to vocational training, but not college. In the white collar group, birth order's effect on educational expectation tends to be the most pronounced. Perhaps the intervening variable is middle class socialization in which the first born is the object of parental projection and is subsequently "pushed" in the direction of college.

The differential socialization argument to explain birth order differences in educational expectation by social class is further enhanced by the comparison of only children. The higher expectation on the part of the only child in a white collar home suggests child rearing practices more conducive to achievement orientation than those prevalent in blue collar homes. Economic considerations are at a minimum when only children are considered.

That this research did not tend to substantiate existing findings with respect to the birth order variable in the case of self-esteem, and college goals, should make us wary, perhaps, in accepting _ex cathedra_ pronouncements such as those contained in Berelson and Steiner's _Inventory of Scientific Findings_. They cite research which is intended to conclusively indicate that first born children in our society are "probably more anxious, more dependent on others, more inclined to go along with the group, more serious, less carefree, more likely to be a problem child."[9] Lists of supposed personality differences between children by birth order read like horoscopes. It was not the intent of this research to test the hypotheses implicit in these statements. However, our findings, in general, might be interpreted to cast doubt on the universality of birth order findings, especially their lack of applicability to a working class population with the ethnic and religious composition of ours.

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[9] Berelson and Steiner, _op. cit._, pp. 73-74.

Finally Kahl's research[10] should be mentioned as his objective was quite similar to ours and was also conducted with working class students. Kahl selected 24 boys from similar backgrounds with sufficient ability to do well in college. One half of the boys had college plans. By interviewing the boys, Kahl attempted to explain why the difference existed. Parental pressure was found to be most highly associated with college plans.

Kahl's study was essentially a deviant case analysis drawn from a larger sample of 3,971 boys on whom questionnaire data were available as part of the larger study. Our study also attempted analysis of "deviant cases,"--one sibling in a pair expecting college. Parental expectations were consistent with the sibling's intentions. Unfortunately, data does not permit time sequence to be established or the relative weight which parental pressure should be accorded in the decision-making process to be fully assessed.

4. Suggestions for Further Research

Studies dealing with group differences in the distribution of pathology are typically referred to as epidemiological. By noting differences in the incidence or prevalence of disease, the medical researcher obtains clues as to other conditions of life which may tend to differentiate groups. As in the case of pellagra, further investigation of differences led to the isolation of the causative agent.

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[10] Kahl, op. cit.

In the present study, we reported, for example, the following sort of "epidemiological finding": a first born female and a younger sibling spaced relatively far apart will both tend to expect college--the "pathology"--more frequently than siblings spaced more closely together. Assuming this finding was supported by other research using samples less homogenous with respect to social class and ethnicity, for example, we would still need to know in what ways the characteristic experiences of these groups varied. If differences could be attributed to such practices as differential socialization, how is socialization of siblings close in age radically different from siblings more widely separated? Further theory and research is needed to attempt to specify the nature of these missing links.

In general it is argued that more attention might be paid to the genuine sociological nature of "causative" variables.[11] It is acknowledged that research dedicated to explanation strictly on the social structural level of analysis inevitably, if not explicitly, tends to introduce psychological factors as intervening variables. (Durkheim's Suicide[12] is a case in point.) Just as common, however, is research which neglects group structure and names psychological variables as the major "independent" variables to be examined. After perfunctorily giving socioeconomic status its due, analysis efforts are often devoted to the task of showing how one attitude is related to another which, in turn, may tend to result in the behavior to be explained.

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[11] The classic statement of this position is put forth by Emile Durkheim, The Rules of Sociological Method (Chicago: University of Chicago, 1938).

Theory giving rise to research should take one logical step backwards. What are the structural roots from which attitudes initially grow? Our study makes a strong case for suggesting that family structural considerations, in particular, may be a fruitful starting point in attempting to assess both the differential presence and effect of attitudes and behavior.

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[12] Emile Durkheim, Suicide, trans. J. G. Spaulding and G. Simpson (Glencoe, Ill.: Free Press, 1951).

# APPENDIX A

# DESCRIPTIVE POPULATION TABLES

## SOCIAL CLASS X ETHNICITY

| Social Class | Ethnicity | Percent |
|---|---|---|
| High | Negro | -- |
| | English/Irish | 15 |
| | Ger./Fr./Scand. | 6 |
| | Italian | 2 |
| | Czech/Polish | 5 |
| Medium | Negro | 3 |
| | English/Irish | 14 |
| | Ger./Fr./Scand. | 6 |
| | Italian | 3 |
| | Czech/Polish | 10 |
| Low | Negro | 3 |
| | English/Irish | 15 |
| | Ger./Fr./Scand. | 5 |
| | Italian | 4 |
| | Czech/Polish | 8 |
| | Total | 99% |

N = 527*

*Three families unknown.

ETHNICITY X RELIGION

| Ethnicity | Religion | Percent |
|---|---|---|
| Negro | Protestant | 6 |
| | Catholic | -- |
| English/Irish | Protestant | 27 |
| | Catholic | 17 |
| Ger./Fr./Scand. | Protestant | 12 |
| | Catholic | 5 |
| Italian | Protestant | 1 |
| | Catholic | 7 |
| Czech/Polish | Protestant | 2 |
| | Catholic | 22 |
| | Total | 99% |

N = 527*

*Three families unknown.

## SOCIAL CLASS X FAMILY SIZE

| Family Size | Social Class<br>Low<br>1 | 2 | 3 | 4 | High<br>5 | Total |
|---|---|---|---|---|---|---|
| 1 | 39 | 10 | 7 | 11 | 4 | 71 |
| 2 | 46 | 4 | -- | 8 | 6 | 64 |
| 3 | 74 | 30 | 6 | 14 | 4 | 128 |
| 4 | 62 | 23 | 10 | 2 | 4 | 101 |
| 5+ | 102 | 17 | 29 | 14 | 5 | 167 |
|  |  |  |  |  |  | 531 |

## BIRTH ORDER X SOCIAL CLASS

| Birth Order | Social Class | Percent |
|---|---|---|
| "Only" | High | 5 |
| | Medium | 5 |
| | Low | 4 |
| First | High | 7 |
| | Medium | 10 |
| | Low | 7 |
| Second | High | 13 |
| | Medium | 10 |
| | Low | 11 |
| Third or Later | High | 11 |
| | Medium | 11 |
| | Low | 6 |
| | Total | 100 |

N = 531

## BIRTH ORDER X SEX

| Birth Order | Sex | | Percent |
|---|---|---|---|
| "Only" | Male | | 7 |
| | Female | | 6 |
| First | Male | | 13 |
| | Female | | 11 |
| Second | Male | | 18 |
| | Female | | 16 |
| Third or Later | Male | | 15 |
| | Female | | 14 |
| | | Total | 100 |

N = 531

# APPENDIX B

# SINGLE ITEM MARGINALS

## SINGLE ITEM MARGINALS

| Content Area | Response Categories | Frequencies |
|---|---|---|
| 1. Family Size | 1 child | 71 |
| | 2-3 siblings | 180 |
| | 4+ siblings | 230 |
| 2. Sibling Sex | | |
| (a) Sex | Males | 212 |
| | Females | 198 |
| (b) Sexual Composition of Pairs | Both male | 58 |
| | Both female | 46 |
| | Male older | 47 |
| | Female older | 54 |
| 3. Age Interval between Sibling Pairs | 0-2 years | 109 |
| | 3-8 years | 96 |
| 4. Birth Order | First | 126 |
| | Second | 153 |
| | Later | 131 |
| 5. Intelligence | Above average | 142 |
| | Below average | 123 |
| | Average | 145 |
| 6. School Achievement | | |
| (a) English | Above average | 148 |
| | Average | 132 |
| | Below average | 126 |
| (b) Social Studies | Above average | 145 |
| | Average | 149 |
| | Below average | 111 |
| (c) Science | Above average | 100 |
| | Average | 100 |
| | Below average | 117 |

SINGLE ITEM MARGINALS--Continued

| Content Area | Response Categories | Frequencies |
|---|---|---|
| (d) Math | Above average | 87 |
| | Average | 121 |
| | Below average | 126 |
| 7. Perceived Parental Educational Level Expected | College | 188 |
| | Vocational training | 113 |
| | High school | 44 |
| | Don't know | 65 |
| 8. Importance of Friends | Very | 257 |
| | Fairly; Not | 153 |
| 9. Friends' Plans | College | 190 |
| | Other | 132 |
| | Don't know | 88 |
| 10. Discussion of Future Plans | | |
| (a) Father | Often | 133 |
| | Sometimes | 157 |
| | Seldom; Never | 120 |
| (b) Mother | Often | 215 |
| | Sometimes | 137 |
| | Seldom; Never | 58 |
| (c) Counselor | Often; Sometimes | 170 |
| | Seldom | 110 |
| | Never | 130 |
| (d) Teacher | Often; Sometimes | 67 |
| | Seldom | 131 |
| | Never | 212 |

SINGLE ITEM MARGINALS--Continued

| Content Area | Response Categories | Frequencies |
|---|---|---|
| (e) Friends Own Age | Often | 238 |
| | Sometimes; Seldom; Never | 172 |
| 11. Education Expected | College | 171 |
| | Vocational training | 144 |
| | High school | 95 |

# APPENDIX C

# SOCIAL CLASS SCORE AND GUTTMAN SCALE CONSTRUCTION

# HOLLINGSHEAD TWO-FACTOR INDEX OF SOCIAL STATUS POSITION

How far did your father go in school? (Check the highest level completed.)

1. 17% Eighth grade or less.
2. 27% Some high school, but did not finish.
3. 31% High school graduate.
4. 4% Some college, but did not finish.
5. 5% College graduate.
6. 3% More than college.
7. 13% Don't know.

Which of the following comes closest to describing the work of your father (or the head of your household)? Mark only one answer. If he works on more than one job, mark the one on which he spends most of his time. If he is now out of work, or if he's retired, mark the one he did last.

1. 51% Workman or laborer--such as factory, farm or mine worker, filling station attendant, etc.
2. 3% Service worker--such as barber, policeman, waiter, etc.
3. 11% Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc.
4. 3% Clerical worker--such as bank teller, bookkeeper, sales clerk, mail carrier, messenger, etc.
5. 17% Skilled worker or foreman--such as baker, carpenter, electrician, tailor, etc.
6. 2% Salesman--such as store salesman, real estate or insurance salesman, factory representative, etc.
7. 3% Proprietor or owner--such as owner of a small business, farm owner, wholesaler, contractor, etc.
8. 5% Manager or executive--such as sales manager, store manager, business manager, factory supervisor, etc.
9. 5% Professional--such as accountant, clergyman, dentist, engineer, lawyer, etc.

The weighting scheme developed by Hollingshead was used:

| Factor Weight | Factor |
|---|---|
| 7 | Occupation |
| 4 | Education |

This results in a possible range of 11 to 77. Hollingshead then suggests the following cutting points for each social class:

| Social Class | Range of Computed Scores |
|---|---|
| I | 11-17 |
| II | 18-27 |
| III | 28-43 |
| IV | 44-60 |
| V | 61-77 |

Based upon the distribution of respondents among the range of computed scores, the cutting points used in the present sample were adjusted. The following cutting points, and the proportion of individuals in each social class were computed on the basis of the responses of all students answering both items comprising the Hollingshead Index.

| Range | Label | % |
|---|---|---|
| 11-30 | Social Class I | 10 |
| 31-51 | Social Class II | 20 |
| 52-61 | Social Class III | 13 |
| 62-68 | Social Class IV | 24 |
| 69-77 | Social Class V | 33 |

After this procedure, the socio-economic status of those students not answering both questions, 15.3% of the total sample, was estimated where possible. The following procedure was used. The item concerning father's education was collapsed to five categories:

| | |
|---|---|
| Social Class I | College graduate or more than college |
| Social Class II | Some college, but did not finish |
| Social Class III | High school graduate |
| Social Class IV | Some high school but did not finish |
| Social Class V | Eighth grade or less |

The item on father's occupation was also collapsed to five catetories:

| | |
|---|---|
| Social Class I | -Professional--such as accountant, clergyman, dentist engineer, lawyer, etc. |

| | |
|---|---|
| | -Manager or executive--such as sales manager, store manager, office manager, business manager, factory supervisor, etc. |
| Social Class II | -Proprietor or owner--such as owner of a small business, farm owner, wholesaler, contractor, restuarant owner, etc.<br>-Salesman--such as store salesman, real estate or insurance salesman, factory representative, etc.<br>-Clerical worker--such as bankteller, bookkeeper, sales clerk, mail carrier, messenger, etc. |
| Social Class III | -Skilled worker or foreman--such as a baker, carpenter, electrician, tailor, foreman in a factory or mine, etc. |
| Social Class IV | -Service worker--such as barber, policeman, waiter, handyman, etc.<br>-Semi-skilled worker--such as factory machine operator, bus or cab driver, meat cutter, etc. |
| Social Class V | -Workman of laborer--such as factory, farm or mine worker, filling station sttendant, etc. |

If a student responded to either of the two items his social class position was then estimated by the above cutting points.

The distribution of all respondents answering either one or both items among the five class positions is as follows:

9% - Social Class I
19% - Social Class II
13% - Social Class III
23% - Social Class IV
36% - Social Class V

The percentage of the total sample of respondents answering neither of the two items is .08.

## ROSENBERG SELF-ESTEEM SCALE (MODIFIED)[1]

For each of the following statements, check how strongly you agree or disagree. (Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Uncer-tain | (4) Dis-agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| I feel that I have a number of good qualities | 7% | 62% | 27% | 3% | 1% |
| *All in all, I am inclined to feel that I am a failure | 2 | 8 | 14 | 51 | 25 |
| *At times I think I am no good at all | 5 | 38 | 21 | 28 | 8 |
| I feel that I'm a person of worth, at least on an equal plane with others | 14 | 66 | 15 | 4 | 1 |
| *I feel I do not have much to be proud of | 2 | 13 | 14 | 45 | 26 |
| I take a positive attitude toward myself | 6 | 51 | 31 | 10 | 2 |
| *I certainly feel useless at times | 5 | 40 | 21 | 29 | 5 |
| *I wish I could have more respect for myself | 10 | 29 | 25 | 28 | 8 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .85.

The distribution of respondents by scale scores is as follows:

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*Items were reversed scored

[1] Rosenberg's Self-esteem Scale developed in his Society and the Adolescent Self-Image. When all ten items are included and the population is scaled, our

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 31 | 6 |
| 2 | 24 | 5 |
| 3 | 23 | 4 |
| 4 | 12 | 2 |
| 5 | 63 | 12 |
| 6 | 21 | 4 |
| 7 | 42 | 8 |
| 8 | 1 | 0 |
| 9 | 1 | 0 |
| 10 | 17 | 3 |
| 11 | 6 | 1 |
| 12 | 88 | 17 |
| 13 | 90 | 17 |
| 14 | 58 | 11 |
| 15 | 54 | 10 |

On the basis of the scale score distribution, scale types were collapsed to from the following categories:

| Range | % | Label |
|---|---|---|
| 1-6 | 33 | High Self-esteem |
| 7-12 | 29 | Average Self-esteem |
| 13-15 | 38 | Low Self-esteem |

---

coefficient of reproducibility is .81. The following two items were dropped in the process of scaling in an attempt to raise the coefficient of reproducibility closer to the desirable .90:

1. On the whole, I am satisfied with myself.
2. I am able to do things as well as most other people.

## ALIENATION SCALE

How strongly do you agree or disagree with the following statements?

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Dis-Agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| Success is more dependent on luck than on real ability | 3% | 7% | 9% | 47% | 34% |
| These days a person doesn't really know who he can count on | 9 | 35 | 28 | 22 | 6 |
| The present is all too often full of unhappiness. It is only the future that counts | 5 | 17 | 27 | 41 | 10 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .88.

The distribution of respondents by scale scores is as follows:

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 120 | 23 |
| 2 | 49 | 9 |
| 3 | 68 | 13 |
| 4 | 7 | 1 |
| 5 | 9 | 2 |
| 6 | 175 | 33 |
| 7 | 103 | 19 |

On the basis of the scale score distribution, scale types were collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1 | 23 | Low Alienation |
| 2-5 | 25 | Medium Low Alienation |
| 6 | 33 | Medium High Alienation |
| 7 | 19 | High Alienation |

## SCALE OF ATTITUDE TOWARD PARENTS

Now we would like to ask you about some of the problems you think you have with your parents. How strongly do you agree or disagree with the following statments which might describe problems you have with your parents?

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| My parents won't let me make decisions | 2% | 11% | 9% | 61% | 17% |
| My parents don't respect my opinions | 4 | 10 | 10 | 58 | 18 |
| My parents expect too much of me | 4 | 10 | 16 | 57 | 13 |
| I feel like leaving home | 4 | 7 | 10 | 38 | 41 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .93.

The distribution of respondents by scale scores is as follows:

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 79 | 15 |
| 2 | 27 | 5 |
| 3 | 33 | 6 |
| 4 | 31 | 6 |
| 5 | 124 | 23 |
| 6 | 31 | 6 |
| 7 | 141 | 27 |
| 8 | 2 | 0 |
| 9 | 63 | 12 |

On the basis of the scale score distribution, scale types were collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1-5 | 55 | Negative attitude to parents |
| 6-9 | 45 | Positive attitude to parents |

## CLASSMATE ACCEPTANCE SCALE

How strongly do you agree or disagree with the following statements? (Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| Students at this school are very friendly | 23 | 55 | 13 | 6 | 3 |
| My classmates are glad to have me as a member of their school | 8 | 58 | 31 | 2 | 1 |
| I really feel like part of this school | 16 | 61 | 16 | 5 | 2 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .95.

The distribution of respondents by scale scores is as follows:

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 45 | 8 |
| 2 | 62 | 12 |
| 3 | 261 | 49 |
| 4 | 70 | 13 |
| 5 | 36 | 7 |
| 6 | 57 | 11 |

On the basis of the scale score distribution, scale types are collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1-2 | 20 | High acceptance by classmates |
| 3 | 49 | Medium acceptance by classmates |
| 4-6 | 31 | Low acceptance by classmates |

## SCALE OF ATTITUDES TO TEACHERS

How strongly do you agree or disagree with the following statements? (Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Undecided | (4) Disagree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| *Teachers are too interested in their own success to care about the needs of students | 4% | 7% | 17% | 41% | 31% |
| If I have a complaint to make, I feel free to talk to teachers | 15% | 39% | 24 | 17 | 5 |
| Most teachers are friendly and can be easily approached | 20 | 61 | 11 | 7 | 1 |
| Teachers at this school are really interested in the welfare of the students | 19 | 46 | 28 | 5 | 2 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .92.

The distribution of respondents by scale scores is as follows:

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 68 | 13 |
| 2 | 40 | 8 |
| 3 | 33 | 6 |
| 4 | 56 | 11 |
| 5 | 71 | 13 |
| 6 | 65 | 12 |
| 7 | 112 | 21 |
| 8 | 86 | 16 |

---

*Item was reversed scored.

On the basis of the scale score distribution, scale types were collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1-3 | 27 | Favorable attitude toward teachers |
| 4-6 | 36 | Ambivalent attitude toward teachers |
| 7-8 | 37 | Unfavorable attitude toward teachers |

## EDUCATION VALUES SCALE

How strongly do you agree or disagree with the following statements? (Check one for each statement)

| | (1) Strongly Agree | (2) Agree | (3) Unde-cided | (4) Dis-agree | (5) Strongly Disagree |
|---|---|---|---|---|---|
| The more education a man has the better he is able to enjoy life | 60% | 28% | 6% | 5% | 1% |
| Education helps a person to use his leisure time to better advantage | 26 | 52 | 15 | 6 | 1 |
| A high school education is worth all the time and effort it requires | 55 | 38 | 4 | 2 | 1 |
| Federal aid to underprivileged school children is a good idea | 41 | 44 | 12 | 3 | 0 |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .90.

The distribution of respondents by scale scores is as follows:

| Scale Scores | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 118 | 22 |
| 2 | 97 | 18 |
| 3 | 15 | 3 |
| 4 | 55 | 10 |
| 5 | 22 | 4 |
| 6 | 62 | 12 |
| 7 | 121 | 23 |
| 8 | 22 | 4 |
| 9 | 19 | 4 |

On the basis of the scale score distribution, scale types were collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1-2 | 41 | Positive Education Values |
| 3-6 | 29 | Neutral Education Values |
| 7-9 | 30 | Negative Education Values |

## PROJECTED ADULT SUCCESS SCALE

The following items comprise the success scale:

How successful do you expect to be in your work?

| | | |
|---|---|---|
| 1 | 11% | Outstandingly successful |
| 2 | 59 | About average, but not outstanding |
| 3 | 30 | About average |
| 4 | 0 | Below average |

How important to you personally is it to get ahead in life?

| | | |
|---|---|---|
| 1 | 76% | Very important |
| 2 | 11 | Fairly important |
| 3 | 3 | Not very important |
| 4 | 0 | Very unimportant |

The young man of today can expect much of the future.

| | | |
|---|---|---|
| 1 | 28% | Strongly agree |
| 2 | 44 | Agree |
| 3 | 17 | Undecided |
| 4 | 9 | Disagree |
| 5 | 2 | Strongly disagree |

The above categories were collapsed and items scaled producing a Guttman scale with a coefficient of reproducibility = .92.

The distribution of respondents by scale scores is as follows:

| Scale Score | Respondents (N=531) | % of Total Respondents |
|---|---|---|
| 1 | 48 | 9 |
| 2 | 111 | 21 |
| 3 | 188 | 35 |
| 4 | 67 | 13 |
| 5 | 52 | 10 |
| 6 | 65 | 12 |

On the basis of the scale score distribution, scale types were collapsed to form the following categories:

| Range | % | Label |
|---|---|---|
| 1-2 | 30 | High projected adult success |
| 3 | 35 | Medium projected adult success |
| 4-6 | 35 | Low projected adult success |

# APPENDIX D

# RELATIONSHIPS IN THE UNMATCHED SIBLING POPULATION

TABLES 1.01-1.08

TABLE 1.01.--Relationship Between Social Class and Education Expected; 410 Siblings (Per cent)

| Education Expected | | White Collar | Blue Collar |
|---|---|---|---|
| Regular four year collage | | 53 | 35 |
| Vocational training or junior college | | 30 | 38 |
| High school or less | | 17 | 27 |
| | Total | 100 | 100 |
| | (N) | (160) | (250) |

Chi square = 13.7; .01 significance

TABLE 1.02.--Relationship Between Family Size and Expected Education; 410 Siblings (Per cent)

| Education Expected | | Small Family (2-3 Siblings) | Large Family (4+ Siblings) |
|---|---|---|---|
| Regular four year college | | 50 | 36 |
| Vocational training or junior college | | 33 | 37 |
| High school or less | | 17 | 27 |
| | Total | 100 | 100 |
| | (N) | (180) | (230) |

Chi square = 9.2; .01 significance

TABLE 1.03.--Relationship Between Sex and Expected Education; 410 Siblings (Per cent)

| Education Expected | Male | Female |
|---|---|---|
| Regular four year college | 45 | 38 |
| Vocational training or junior college | 28 | 43 |
| High school or less | 27 | 19 |
| Total | 100 | 100 |
| (N) | (212) | (198) |

Chi square = 10.6; .01 significance

TABLE 1.04.--Relationship Between Birth Order and Expected Education; 410 Siblings (Per cent)

| Education Expected | Birth Order<br>First | <br>Second | <br>Later |
|---|---|---|---|
| Regular four year college | 41 | 44 | 41 |
| Vocational training or junior college | 44 | 36 | 25 |
| High school or less | 15 | 20 | 34 |
| Total | 100 | 100 | 100 |
| (N) | (126) | (153) | (131) |

Chi square = 17.5; .01 significance

TABLE 1.05.--Birth Order by Size of Sibship; 410 Siblings (Per cent)

| Birth Order | | Sibship Size<br>2-3 Sibs | <br>4+ sibs | Total |
|---|---|---|---|---|
| First | | 17 | 13 | 30 |
| Second | | 20 | 18 | 38 |
| Later | | 7 | 25 | 32 |
| | Total | 44 | 56 | 100% |
| | (N) | (180) | (230) | (410) |

Chi square = 39; .001 significance

TABLE 1.06.--Birth Order and Social Class; 410 Siblings (Per cent)

| Birth Order | | White Collar | Blue Collar |
|---|---|---|---|
| First | | 37 | 27 |
| Second | | 39 | 37 |
| Later | | 24 | 36 |
| | Total | 100 | 100 |
| | (N) | (159) | (251) |

Chi square = 8.5; .05 significance

TABLE 1.07.--Social Class and Family Size; 410 Siblings (Per cent)

| Family Size | | White Collar | Skilled Blue Collar | Unskilled Blue Collar |
|---|---|---|---|---|
| 2 Siblings | | 18 | 14 | 16 |
| 3 Siblings | | 32 | 30 | 22 |
| 4+ Siblings | | 50 | 56 | 62 |
| | Total | 100 | 100 | 100 |
| | (N) | (112) | (146) | (152) |

Chi square = 2.49; not significant

TABLE 1.08.--The Relationship Between Birth Order and Education Expected by Social Class

| Education Expected | White Collar | | | | Blue Collar | | | |
|---|---|---|---|---|---|---|---|---|
| | Only Child | First Born | Second Born | Later Born | Only Child | First Born | Second Born | Later Born |
| Regular four year college | 60 | 53 | 53 | 48 | 36 | 32 | 35 | 34 |
| Vocational training or junior college | 26 | 37 | 29 | 31 | 39 | 48 | 42 | 30 |
| High school or less | 14 | 10 | 18 | 21 | 25 | 20 | 23 | 36 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| (N) | (35) | (54) | (64) | (42) | (36) | (60) | (98) | (92) |

Chi square = 4; not significant   Chi square = 9.8; not significant

# APPENDIX E

# RELATIONSHIPS BETWEEN FAMILY STRUCTURE AND COLLEGE EXPECTATION

## TABLES 2.01-2.14

TABLE 2.01.--Relationship Between Social Class and Education Expected; 205 Sibling Pairs (Per cent)

| Education Expected | White Collar | Skilled Blue Collar | Unskilled Blue Collar |
|---|---|---|---|
| Older Expects College | 11 | 14 | 6 |
| Younger Expects College | 27 | 12 | 26 |
| Both Expect College | 48 | 20 | 14 |
| Neither Expect College | 14 | 54 | 54 |
| Total | 100 | 100 | 100 |
| (N) | (56) | (73) | (76) |

Chi square = 36.1; .001 significance level.

TABLE 2.02.--Mean Family Size and College Expectations of Siblings; 205 Families

| Sibling College Expectations | Mean Family* Size | Standard Deviation | "t" | df | Significance |
|---|---|---|---|---|---|
| Both Expect | 3.2 | .8 | | | |
| Neither Expect | 3.6 | .6 | 4.44 | 278 | .01 |
| Older Expects | 3.3 | .8 | | | |
| Neither Expects | 3.6 | .6 | 2.28 | 214 | .05 |
| Younger Expects | 3.4 | .8 | | | |
| Neither Expects | 3.6 | .6 | 2.17 | 260 | .05 |

*Family size greater than nine was coded as nine. Therefore mean family size is a truncated mean. Significant differences may be greater than indicated.

1175

TABLE 2.03.--Relationship Between Family Size and College Expectations; 140 Sibling Pairs (Per cent)

| Sibling College Expectations | | Small Family (2-3) | Large Family (4+) |
|---|---|---|---|
| Both Expect | | 50 | 30 |
| Neither Expect | | 50 | 70 |
| | Total | 100 | 100 |
| | (N) | (58) | (82) |

Chi square = 6.2; .05 significance level.

1175

TABLE 2.04.--Relationship Between Family Size and Education Expected by Social Class; 140 Sibling Pairs (Per cent)

| Sibling College Expectations | White Collar 2-3 Sibs | 4+ Sibs | Total | Skilled Blue Collar 2-3 Sibs | 4+ Sibs | Total | Unskilled Blue Collar 2-3 Sibs | 4+ Sibs | Total |
|---|---|---|---|---|---|---|---|---|---|
| Both Expect | 48 | 52 | 100 | 60 | 40 | 100 | 64 | 36 | 100 |
| Neither Expect | 50 | 50 | 100 | 33 | 67 | 100 | 30 | 70 | 100 |
|  | No Relationship |  |  | No Relationship |  |  | Chi Square = 4.18;<br>.05 Significance Level. |  |  |

TABLE 2.05.--Relationship Between Sex of Older Sibling and College Expectations By Social Class; 65 Sibling Pairs (Per cent)

| Sibling College Expectations | White Collar | | | Blue Collar | | |
|---|---|---|---|---|---|---|
| | Male Older | Female Older | Total | Male Older | Female Older | Total |
| Older Sibling Expects College | 33 | 67 | 100 | 67 | 33 | 100 |
| Younger Sibling Expects College | 47 | 53 | 100 | 38 | 62 | 100 |
| | No Relationship | | | Chi Square = 3.27<br>Not significant at the .05 level | | |

TABLE 2.06.--Relationship Between Sex and Relative Age of Sibling By College Expectation

| Relative Age | Sexual Composition of Sibship<br>Both Male | Male Older Female Younger | Female Older Male Younger | Both Female |
|---|---|---|---|---|
| Per cent Older Expects College | 25% | 14% | 13% | 20% |
| Per cent Younger Expects College | 29% | 17% | 23% | 27 |
| Per cent Both Expect College | 19% | 10% | 8% | 14% |
| Per cent Neither Expect College | 27% | 59% | 56% | 39% |
| Total | 100 | 100 | 100 | 100 |
| (N) | (110) | (90) | (106) | (90) |

TABLE 2.07.--Relationship Between Sex of Sibling Pairs and College Expectation

| College Expectation | Sexual Composition of Sibship<br>Both Male | Male Older Female Younger | Female Older Male Younger | Both Female |
|---|---|---|---|---|
| Both Expect College | 38 | 20 | 17 | 29 |
| Neither Expect College | 31 | 58 | 45 | 38 |
| One Expects College | 31 | 22 | 38 | 33 |
| Total | 100 | 100 | 100 | 100 |
| (N) | (55) | (45) | (33) | (45) |

TABLE 2.08.--Relationship Between Social Class and Sibling College Expectation By Sex; 53 Sibling Pairs (Per cent)

| College Education Expected by Sex | White Collar | Blue Collar |
|---|---|---|
| Two Males Expect College | 52 | 27 |
| Two Females Expect College | 30 | 27 |
| One Male and One Female Expect College | 18 | 46 |
| Total | 100 | 100 |
| (N) | (27) | (26) |

Chi Square = 5.3; not significant at the .05 level.

Table 2.09.--Relationship Between Birth Order of Older Sibling and College Expectations By Social Class; 205 Sibling Pairs (Per cent)

| College Expectations | White Collar Older Sibling First Born | Later Born | Total | Skilled Blue Collar Older Sibling First Born | Later Born | Total | Unskilled Blue Collar Older Sibling First Born | Later Born | Total |
|---|---|---|---|---|---|---|---|---|---|
| Older Expects | 67 | 33 | 100 | 70 | 30 | 100 | 80 | 20 | 100 |
| Younger Expects | 40 | 60 | 100 | 78 | 22 | 100 | 60 | 40 | 100 |
| Both Expect | 70 | 30 | 100 | 67 | 33 | 100 | 64 | 36 | 100 |
| Neither Expect | 75 | 25 | 100 | 71 | 29 | 100 | 40 | 60 | 100 |

TABLE 2.10.--Relationship Between Sex and Birth Order of Older Sibling and College Expectations; 205 Sibling Pairs (Per Cent)

| Sibling College Expectations | Sex of Older Sibling | | | |
|---|---|---|---|---|
| | Male | | Female | |
| | Older Sibling | | Older Sibling | |
| | First Born | Later Born | First Born | Later Born |
| Both Expect | 30.8 | 31.7 | 28.8 | 12.5 |
| Neither Expect | 41.5 | 39.0 | 33.9 | 52.5 |
| One Expects | 27.7 | 29.3 | 37.3 | 35.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| (N) | (65) | (41) | (59) | (40) |

TABLE 2.11.--Relationship Between Age Interval Separating Siblings and Their College Expectations; 205 Sibling Pairs (Per cent)

| College Expectations | | Age Interval Separating Siblings | |
|---|---|---|---|
| | | Small (0-2 years) | Large (3+ years) |
| Both Expect | | 23 | 31 |
| Neither Expect | | 43 | 38 |
| One Expects | | 34 | 31 |
| | Total | 100 | 100 |
| | (N) | (109) | (96) |

TABLE 2.12.--Relationship Between Age Interval Separating Siblings and Their College Expectations by Birth Order of Older Sibling; 205 Sibling Pairs (Per cent)

| Sibling College Expectations | | Older Sibling | | | |
|---|---|---|---|---|---|
| | | First Born Age Interval | | Later Born Age Interval | |
| | | Small | Large | Small | Large |
| Both Expect | | 23.5 | 36.5 | 21.6 | 22.0 |
| Neither Expect | | 42.6 | 34.6 | 48.6 | 46.3 |
| One Expects | | 33.9 | 28.9 | 29.8 | 31.7 |
| | Total | 100.0 | 100.0 | 100.0 | 100.0 |
| | (N) | (70) | (54) | (39) | (42) |

TABLE 2.13.--Relationship Between Age Interval Separating Siblings and Their College Expectations by Sex of Older Sibling; 205 Sibling Pairs (Per cent)

| Sibling College Expectations | | Sex of Older Sibling | | | |
|---|---|---|---|---|---|
| | | Male | | Female | |
| | | Age Interval | | Age Interval | |
| | | Small | Large | Small | Large |
| Both Expect | | 31 | 33 | 11 | 30 |
| Neither Expect | | 41 | 42 | 50 | 37 |
| One Expects | | 28 | 25 | 39 | 33 |
| | Total | 100 | 100 | 100 | 100 |
| | (N) | (60) | (45) | (48) | (52) |

TABLE 2.14.--Relationship in Sibling Pairs Between Sex of Later Born Older Siblings from Blue Collar, Large Families and Their College Expectations; 42 Sibling Pairs (Per cent)

| College Expectations | | Older Sibling | |
|---|---|---|---|
| | | Male | Female |
| Both Expect | | 27.3 | -- |
| Neither Expect | | 54.5 | 65 |
| One Expects | | 18.2 | 35 |
| | Total | 100.0 | 100 |
| | (N) | (22) | (20) |

# APPENDIX F

# VARIABLES INTERVENING IN THE RELATIONSHIP BETWEEN FAMILY STRUCTURE AND COLLEGE EXPECTATION

## TABLES 3.01-3.08

TABLE 3.01.--Intelligence of Siblings with Conflicting College Plans; 64 Sibling Pairs

| College Expectations | Intelligence | | | Sign Test* | |
|---|---|---|---|---|---|
| | Older Higher | Younger Higher | No Difference | Value | Significance |
| Older Expects College | 10 | 2 | 8 | .019 | .05 |
| Younger Expects College | 6 | 19 | 19 | .007 | .01 |

*Significance pertains to one-tailed calculations.

TABLE 3.02.--Achievement of Sibling Pairs with Conflicting College Plans; 65 Sibling Pairs

| School Subject | College Plans | Mean Achievement of Older | Mean Achievement of Younger | "t" Value | df | Significance Level |
|---|---|---|---|---|---|---|
| Math | Older Expects College | 2.0 | 1.6 | 1.62 | 37 | n.s. |
| | Younger Expects | 1.6 | 1.9 | -1.61 | 72 | n.s. |
| Science | Older Expects College | 1.8 | 1.5 | 1.04 | 31 | n.s. |
| | Younger Expects | 1.6 | 2.1 | -2.76 | 67 | .01 |
| Social Studies | Older Expects College | 2.0 | 1.6 | 1.64 | 39 | n.s. |
| | Younger Expects | 2.2 | 2.3 | -- | | n.s. |
| English | Older Expects College | 2.0 | 1.7 | 1.02 | 39 | n.s. |
| | Younger Expects | 2.0 | 2.3 | -1.61 | 86 | n.s. |

Range: 3 = High Achievement; 1 = Low Achievement

TABLE 3.03.--Relationship Between Social Class Estimate and Sibling College Expectations; 205 Sibling Pairs (Per Cent)

| College Expectations | Higher Social Class Estimate Older Sibling | Younger Sibling | No Difference | Total | (N) |
|---|---|---|---|---|---|
| Older Expects | 28 | 5 | 67 | 100 | (21) |
| Younger Expects | 14 | 27 | 59 | 100 | (44) |
| Both Expect | 34 | 9 | 57 | 100 | (53) |
| Neither Expect | 14 | 23 | 63 | 100 | (87) |

Chi square = 15.9; .05 significance level.

TABLE 3.04.--Self-Esteem and Alienation of Sibling Pairs with Conflicting College Plans; 65 Sibling Pairs

| Self-Attitude | College Plans | Mean Achievement of Older Sibling | Mean Achievement of Younger Sibling | "t" Value | df | Significance Level |
|---|---|---|---|---|---|---|
| Self-Esteem | Older Expects College | 1.9 | 2.3 | -1.77 | 40 | .01 |
| | Younger Expects College | 2.0 | 1.9 | .55 | 86 | n.s. |
| Alienation | Older Expects College | 2.1 | 2.9 | -2.47 | 40 | .05 |
| | Younger Expects College | 2.5 | 2.5 | -- | | n.s. |

Self-Esteem Range: 1 = high self-esteem; 3 = low self-esteem.

Alienation Range: 1 = low alienation; 3 = high alienation.

TABLE 3.05.--Significant Other Attitudes Among Siblings with Conflicting College Plans; 65 Sibling Pairs

| Significant Other | College Plans | Mean Achievement of Older | Mean Achievement of Younger | "t" Value | df | Significance Level |
|---|---|---|---|---|---|---|
| Friends | Older Expects College | 1.4 | 1.6 | -1.29 | | n.s. |
| | Younger Expects College | 1.4 | 1.4 | --- | | n.s. |
| Classmates | Older Expects College | 1.8 | 2.0 | -1.04 | | n.s. |
| | Younger Expects College | 2.2 | 2.0 | 1.34 | | n.s. |
| Teachers | Older Expects College | 1.9 | 2.2 | -1.30 | | n.s. |
| | Younger Expects College | 2.3 | 2.3 | --- | | n.s. |
| Parents | Older Expects College | 1.6 | 1.1 | 3.93 | | .01 |
| | Younger Expects College | 1.5 | 1.6 | - .94 | | n.s. |

Variable range:
Friends: 1 = high importance; 3 = low importance
Classmates: 1 = high acceptance; 3 = low acceptance
Teachers: 1 = Positive attitude toward; 3 = Negative attitude toward
Parents: 1 = Unfavorable attitude toward: 3 = Favorable attitude toward

TABLE 3.06.--Perceived Expectations of Parents and Friends' Plans Among Sibling Pairs with Conflicting College Plans; 65 Sibling Pairs

| College Expectations of Parents and Friends as Perceived by Siblings | Sibling College Plans | Mean Achievement of Older | Mean Achievement of Younger | "t" Value | Significance Level |
|---|---|---|---|---|---|
| Perceived Parental Expectations with respect to College | Older Expects College | 3.0 | 2.5 | 3.1 | .01 |
| | Younger Expects College | 2.0 | 2.7 | -4.9 | .01 |
| Friends' Plans | Older Expects College | 1.2 | 1.7 | -3.3 | .01 |
| | Younger Expects College | 1.5 | 1.2 | 8.8 | .01 |

Variable range:

Parental Expectations: 1 = high school or less; 3 = college

Friends Plans: 1 = college; 3 = high school or less

TABLE 3.07.--Educational Values and Success Optimism Among Sibling Pairs With Conflicting College Plans; 65 Sibling Pairs

| Values and Attitudes | College Plans | Mean Achievement of Older | Mean Achievement of Younger | "t" Value | df | Significance Level |
|---|---|---|---|---|---|---|
| Educational Values | Older Expects College | 1.8 | 1.9 | -.36 | 40 | n.s. |
| | Younger Expects College | 2.1 | 1.7 | 2.20 | 86 | .05 |
| Success Optimism | Older Expects College | 2.1 | 2.9 | -2.47 | 40 | .05 |
| | Younger Expects College | 2.5 | 2.5 | -- | | n.s. |

Variable range:

Educational Values: 1 = Positive; 3 = Negative

Success Optimism: 1 = High; 3 = Low

TABLE 3.08.--Discussion of Future Plans by Sibling Pairs in Agreement with Respect to College Plans; 140 Sibling Pairs

| Plans Discussed with | College Plans | Mean Achievement of Older | Mean Achievement of Younger | "t" Value | df | Significance Level |
|---|---|---|---|---|---|---|
| Father | Both Expect | 1.7 | 1.9 | -1.37 | 103 | n.s. |
| | Neither Expect | 2.1 | 2.1 | -- | | n.s. |
| Mother | Both Expect | 1.5 | 1.8 | -2.21 | 104 | .05 |
| | Neither Expect | 1.8 | 1.9 | -- | | n.s. |
| Counselor | Both Expect | 1.3 | 2.3 | -7.66 | 140 | .01 |
| | Neither Expect | 1.8 | 2.4 | -4.92 | 170 | .01 |
| Teacher | Both Expect | 2.0 | 2.4 | -2.62 | 104 | .01 |
| | Neither Expect | 2.3 | 2.4 | -- | | n.s. |
| Friends Same Age | Both Expect | 1.3 | 1.6 | -3.15 | 104 | .01 |
| | Neither Expect | 1.5 | 1.5 | -- | | n.s. |

Variable range:

Father: 1 = Plans discussed with high frequency: 3 = Plans discussed with low frequency
Mother:
Teacher:
Counselor: Remainder are same as above.
Friends Same Age:

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TITLE

THE RELATIONSHIP BETWEEN POVERTY AND EDUCATIONAL DEPRIVATION
(FINAL REPORT)

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ABSTRACT

A questionnaire survey of 6455 high school students and 400 teachers in eight junior and senior high schools in the Pittsburgh metropolitan area investigated the relationship of poverty to educational aspirations and plans. The results are presented as a series of five doctoral dissertations dealing with the following subjects: "Students Poverty Status and Their Educational Horizons," "Educational Horizons Among Lower Class Negro High School Students," "Adolescents Perception of School Climate As Related To Selected Personal and School Characteristics," "The Relationship Between Social Origins of Teachers and Their Attitudes Toward Poverty," and "The Relationship Between Family Structure and Sibling Achievement." These reports show that low-income status among secondary school students is an important determinant of parental and peer influences and of attitude development in regard to society, school, and self. In regard to educational aspirations, "poverty" status is very highly associated with lower educational horizons. The social structure constraints of lower social class membership and of negative parental and peer influence combine with unfavorable evaluations of society, school, and self to decrease the desires of "poverty" students to seek a higher education. This applies equally to white and Negro students. The bond between poverty and educational deprivation appears to be firmly established.